

Thursday, Feb. 22, 1912.

#180 McDonough St., Brooklyn, N.Y.

Cold and Windy.

Arise about 7:00, at #180 McDonough St., Brooklyn; and go to Jamaica with Dick; there take trolley to Flushing; go to Dr. Horace W. King and have my teeth filled. He gave me drills soft fillings, etc. with which to care for my teeth in the field. We were surprised to find that I had a card of introduction to Fred Tracey in Singapore to whose sister King is engaged. I left Flushing early in the afternoon and went down to S. Brooklyn and go aboard the S.S. Bramley and talk to Capt. Ruthen, even talk to Dick, Helen and Aunt Soph and read and go to bed about 12:00.

Friday, Feb. 23, 1912.

Cold, Clear.

Do a few errands and go to N.Y.; go up to the museum about noon and go out to lunch with Dwight Franklin; after lunch, go upstairs and say good-bye to Miller, Dr. Dwight, Chapman, Adolph Elwyn & Miss Dickerson, & the fellows in the department of preparation. Leave the museum about 3:30; (at noon I saw Dr. Bailey), go over to Brooklyn and change my clothes and return to N.Y.; G.W. Elder, Jr. gave a dinner for me; have a good time; go up to 89th St., and sleep with Butler from 5:30 to 7:00 A.M., 24th; have breakfast with Butler & go down town, get my camera case and go to Brooklyn, try to get hold of an expressman, but being unable to get one, I hurried over to the S.S. office and learned that the Bramley would sail about noon on Monday; do several errands, call on Mrs. Franklin & come over to Aunt Soph's to lunch & talk to Aunt Elizabeth & May Belle; meet Geo. Elder & others at hotel Empire at 4:15 & ride in his auto up to New Rochelle and later return to City and have dinner at Jack's; go to Brooklyn; could not get in;

night at the Hermitage - 12:15.

Day, Feb. 25, 1912.
Cold, Clear.

Arise at the Hermitage Hotel, go to Brooklyn, talk to May Belle, Dick, Ned, Helen & Aunt Soph.; Cloie Skelton & her cousin Royal Hyde came to call, have a nice talk with Cloie. Aunt Maggie came in for a few minutes to say good-bye to me. After dinner, Mrs. Franklin & Butler came in to see me and brought me some magazines, etc.; later in the afternoon, Aunt Soph. helped me pack an extra box & Cousin Edo called in the early evening. I came over to N.Y. & met Geo. Elder & spent the night with him; write mother 3:00.

Monday, Feb. 26, 1912.
S.S. Bramley (N.Y. Bay).

Cold. S., R. Windy.

Arise 6:00, go to #180 McDonough St. & have breakfast & meet May Belle & take her to Grand Central depot. I then met Geo. Elder and he went down town with me while I did some errands & then to see the captain of the Bramley. I signed on as ship's doctor; the Captain then said we would sail at 11:30; so Geo. & I rushed over to Brooklyn, got a taxi & went to Aunt Soph. & I said good-bye to Helen & Aunt Soph.; and drove with best speed to the boat. Dick, Geo. & Ludlow Raymond were there to see me off. The boat left the pier about noon and anchored down the Bay and took aboard 30 tons of dynamite. In the evening I talked to the pilot and captain; bed, 10:00.

Tuesday, Feb. 27, 1912.
Cold, Co.*

Arise about 6:00. We were under way at day break; I went up on the bridge & saw Sandy Hook light & light ship. I gave the pilot a couple of letters to mail for me. When we were out of sight of the

pilot we could see no sign of land. I spent the day sitting in the cabin with the captain and in standing on the Bridge in the middle of the morning and again just before going to bed I felt slightly sea-sick. It has been blowing ever since we left the Hook; bed 10:00.

Wednesday, Feb. 28, 1912.
Clear, Windy.

Arise about 7:00, walk about the deck and go all through the engine room, etc. with the chief engineer and look at the chief's camera. After dinner, read and then take a nap and sleep until supper time. After supper, go up on the bridge for a while and then come down and talk to the captain until I got rather sleepy & then go to bed. The salt air seems to make me always ready to sleep. Bed 10:00.

Thursday, Feb. 29, 1912.
Clear - *.

Arise about 7:15; after breakfast go up on the bridge for a while and walk about the deck. She rolls quite a bit; I do not feel it as I did the first day out. After lunch I went up in the 2nd mate's room and talked to him for about an hour, then I came down in the cabin and read & developed some plates that I had taken before I left Brooklyn. The plates are very poor. After supper, I sat in the cabin and read and talked to Capt. Ruthen & went to bed at 10:15.

Friday, March 1, 1912.
Clear, Warm.

Arise 7:15; talk to captain and chief engineer, walk on deck and load some plates and make some exposures to try out my camera. Stay on deck for quite a while as the weather is mild and clear. After lunch, read, put threads on mammal labels and talk to the second mate up in the chart room. This is the best day we have had and the first day that a hard wind has not been blowing; evening sit in the cabin;

talk to the captain & read & go to bed about 10:00.

Saturday, March 2, 1912.
Clear, C.R.

Arise 7:15, go up on deck and walk back and forth for exercise and watch the gulls, about a dozen herring gulls and a few Kittiwakes. I spent most of my time both this morning and this evening in putting threads on labels, though this afternoon I had a good sleep for about two hours. The salt air seems to give me a good appetite and makes me very sleepy. I always enjoy talking to Capt. Ruthen and the mates. Bed 10:30.

Sunday, March 3, 1912.
1132 Mi. E. of N.Y.
R. Cl. C. * sleet.

Arise about 7:15; after breakfast go up on deck and walk about for exercise, come down in cabin at 9:30 and put strings on labels until noon; after dinner go up on bridge and talk to second mate; watch sea-gulls. Then come down and talk to Captain. Late in the afternoon see a 3 masted schooner to the south, the first vessel seen since leaving N.Y. This evening I went up on the bridge and talked to the mate and later talked to Capt. Ruthen. Bed 9:45.

Monday, March 4, 1912.
C.R. Cl. R.

Arise about 7:15, walk about the decks and talk to the Captain & the mates, work practically all day stringing labels in the cabin. Late in the afternoon I developed some plates and then go on deck for a while. After dinner go up on the bridge and look at the stars & talk to the captain & 1st mate. The weather changes from clear to rain and back again very suddenly, but does not get very cold. Bed 10:00.

Tuesday, March 5, 1912.

S.S. Bramley.

C. (A beautiful day).

Arise 7:15, go up on deck and walk about for exercise, spend all the forenoon and until about 3:00 P.M. putting strings on labels. Then rewash the plates I developed yesterday and go up on deck and walk and talk to Capt. & other officers. After supper, walk on the bridge for a while & look at the stars, then come down in the cabin & read Ditmars Reptiles of the World, & finally go to bed about 10:30. From the bridge see a large fish which the captain said was a sunfish.

Wednesday, March 6, 1912.

S.S. Bramley.

Cl. R. * (Storm)

Captain Ruthen called me about 4:00 o'clock. I got up and watched him bandage a fireman's head (Chinese). Later in the morning the cook came up to be doctored; the fireman had made a nasty cut on the cook's head with a hammer. I spent practically all the morning on the bridge watching the big seas. A portion of the deck cargo was heaved overboard (Sulphuric Acid) and blazed up upon touching the water. After dinner I strung some labels and talked with the captain which is always an interesting thing to do. Bed about 10:35.

Thursday, March 7, 1912.

On Board S.S. Bramley about 50 Mi. N.E. of Azores Is.

Clear.

Arise 7:15, go up on the bridge and walk about for exercise and nearly get caught by a sea, which came 3 ft. deep along the deck. Spend most of the day in the cabin with the captain putting threads in labels. After dinner, talk to the mate & captain & chief engineer; at 7:30 P.M. hear groans & find the second steward had been knocked down by a sea & on deck & his ankle badly hurt; he managed to get to the cabin door where I found him in a heap.

Friday, March 8, 1912.
S.S. Bramley.
Variable (squalls).

Arise about 7:30, go up on deck and walk about for exercise & talk to the captain and mates; spend practically all day threading labels. It is a very tedious job threading labels. There are quite a number of Kittiwake gulls following the ship. From the bridge we saw a shark swimming slowly along on the surface of the water. It was probably over 15 ft. long. Go to bed about 10:30.

Saturday, March 9, 1912.
S.S. Bramley, 150 mi. Northward & E. of the Azores Is.
Clear, C. * (Squalls) High seas.

Arise about 7:15; after breakfast walk about on deck for exercise and talk to the captain & mates & try to catch gulls on a hook & line without success; later try and photograph them with no results, owing to the high wind & big seas. I had a sleep this P.M. from 2:00 until 3:30 o'clock. The time since leaving N.Y. seems very short and the time passes very quickly, but when I look ahead it seems a long time before we will reach Singapore. Bed about 10:00.

Sunday, March 10, 1912.
S.S. Bramley.
Clear, C.

(Passed a boat at 3:00 A.M.; 2nd boat since N.Y.)

Arise about 7:15, go up on deck and walk about for exercise & after breakfast talk to the captain, mates & engineers & later to the phonograph & watch the fellows do athletic stunts; see several kittiwakes, a Wilsons petrel, a large petrel, some dovebies, also some porpoises. The weather is very mild & delightful to-day. This afternoon I wrote a letter to K. Noble & one to Harper; go to bed about ten o'clock.

Monday, March 11, 1912.

S.S. Bramley, 300 Miles W., Cape St. Vincent.
Clear, C. Mild.

Arise 7:00; shave & go up on deck and walk about & talk to mates and engineers and spend most of the day writing to Harper & Geo. Elder; the weather is very calm and nice and the sea has gone down. This P.M., I tried to get a picture of some gulls (Kittiwakes) as they flew back and forth along side of the boat but they did not come quite close enough at the right time. We expect to reach Cape St. Vincent sometime to-morrow night and to be in Algiers on Friday. Evening read & talk to captain & chief mate. Bed 9:00.

Tuesday, March 12, 1912.

S.S. Bramley.

Arise about 7:00; go up on deck & see a couple of boats passing & look at them with the glasses. Spend most of the day writing but watch Kittiwakes feeding on refuse & following the ship. This afternoon and this morning I had hiccoughs which annoyed me very much and I was a long time getting rid of them. We expect to sight St. Vincent Light to-night. Eat no dinner & go to bed about 6:30.

Wednesday, March 13, 1912.

S.S. Bramley, S.E. of Cape St. Vincent, Portugal.
C. *

(Spend a good part of the day writing).

Arise about 6:45; look off to port & see the coast of Portugal, Cape St. Vincent and several steamers. I do not feel very well today. I think I have indigestion. This morning I went on the bridge and looked at the land, etc. Yesterday there were nothing but Kittiwakes about the ship and this morning I find they have all

disappeared and have been replaced by Blackbacked gulls, one of which dropped a small fish on deck; besides the gulls I saw several duck, presumably scaups and 6 birds I took to be Tern. This evening I talked to Capt. Ruthen & Mr. Hill. Bed 9:30.

Thursday, March 14, 1912.

S.S. Bramley.

Clear, R. *

Arise about 7:00; the weather is stormy, wind ahead & blowing hard; we passed some steamers & a couple of sailing ships and I photographed a couple of them. I spent most of the day writing as it has been very disagreeable and wet on deck. I also whiled away the time by reading a magazine and talking to the captain and the first mate. We expect to be through the Straits of Gibraltar by daybreak to-morrow. Bed about 9:45.

Friday, March 15, 1912.

S.S. Bramley (Gibraltar).

R. Clear *

I was awakened at 3:45, when the 2nd mate called the captain. The steering chain parted and we drifted about in the Straits; everything in the cabin was sliding about & seas washing aboard which went higher than the masts. We ran into Gibraltar harbor after the chain was repaired, and after a little more repairing was done, we started on for Algiers, bucking into a head sea but after noon the wind was not so strong. This A.M., we drifted from the middle of the Straits of Gibraltar to within a mile and a half of Ceuta Light on the Moroccan coast. Evening sit in first mate's room & talk to him, captain & 2nd Engineer. Go to bed about 10:00.

Saturday, March 16, 1912.

S.S. Bramley.

Clear, C. Mild.

Arise 7:45; after breakfast, go on deck for a few minutes and later repack my clothes, etc. in my chest and after lunch wash out some socks, handkerchiefs & pajamas and finish writing a letter to Florence Alexander, & go up on the bridge & talk to the mate & after dinner do the same and then come down in the cabin & write Hazel Nelson & talk to the officers the same as last night. I have seen two or three porpoises & a few gulls & divers, to-day. Yesterday I saw a gaunet. Bed 11:00.

Sunday, March 17, 1912.

S.S. Bramley (Algiers)

C., Warm.

Arise about 7:30; after breakfast go up on deck and walk about. Spend about all the morning writing to Father & Mother. We can see the shore of Algeria to the south too far away to distinguish anything, but the outline of the mountains against the sky. After dinner change my clothes & take a couple of pictures; go into Algiers Harbor about 5:00 P.M. After supper go ashore & walk about Algiers with Capt. Ruthen; look in shop windows, etc., come back to the ship about ten o'clock and go to bed about 10:30.

Monday, March 18, 1912.

S.S. Bramley (Algiers).

C., Warm.

Arise 6:00; go ashore and do some shopping & buy a pair of (Carl Zeiss) binoculars for 7 L. 4's. I enjoyed going about and seeing the shops and the Arabs & French people. Post some letters and when I returned to the ship, write some post cards and admire the city from on board the ship; it is a beautiful city and the

first non-American port I was ever in. The Captain expects to sail at 10:30 this A.M., but we did not leave until about 8:00 P.M.

Tuesday, March 19, 1912.
S.S. Bramley (90 Mi. W. Galita Is.)
C., Warm.

Arise about 7:45; I did not feel extra well this morning but feel much better this afternoon. This morning I sat on the deck in the sun; talked to the captain and strung a few labels and this afternoon I developed some plates, and this evening printed a few pictures & talked to the 2nd engineer, mate & captain. It has been a fine day, clear, mild and with just a nice breeze. Bed, 10:45.

Wednesday, March 20, 1912.
S.S. Bramley.
C., Cl. R. at night.

Arise about 7:45 & go on deck & walk about and varnish the rail on the upper bridge & talk to the second mate. After lunch, go on deck and watch birds through my binoculars; see puffins & a large bird, presumably fulmars & see a small bird, a finch. Also see a school of porpoises playing about the ship. After supper, talk to captain Ruthen & later, with Mr. Hill. Print a few pictures and go to bed about 11:00.

Thursday, March 21, 1912.
S.S. Bramley (Malta Is. Abeam at noon).
Cl., C.

Arise about 7:45 and after walking about on deck for a few minutes, come down in the cabin & put strings in labels until about noon; go on deck & photograph a porpoise alongside the ship; after lunch, string more labels and talk to Capt. Ruthen & the

mate & look at porpoises and a few fulmars & gulls; also see two brownish colored sea turtles; with my glasses I had a good look at Valetta Harbor & last night I saw Pantellaria (convict settlement). Go to bed about 10:00.

Friday, March 22, 1912.
S.S. Bramley.
C.

Arise about 7:30; after walking about on deck for a while with Capt. Ruthen & sitting up on the forecastle for a while, I came down in the cabin & put threads in some more small mammel labels. After lunch, read & do some more labels and go up on deck and walk about for exercise & after dinner write a few lines to Cloie Skelton & after 8:00, develop some prints with the 2nd engineer in his room and get through & go to bed about 11:45.

Saturday, March 23, 1912.
S.S. Bramley (off Tripoli)
C.

Arise about 7:30 and after breakfast walk on deck for exercise, as usual. I saw only one gull and a few fulmars to-day & none of these near the ship. This morning I washed some clothes and strung some labels and this afternoon continued label stringing which is a monotonous past-time. Before & after dinner go up on deck and walk for exercise and talk to the mates and captain. In the evening, write a few lines more to Cloie Skelton & take some medicine and go to bed rather earlier than usual.

Sunday, March 24, 1912.
S.S. Bramley.
Cl., R. C.

Arise at 7:00; have a bath and go up on deck and look at birds through my glasses as the sea is very calm. After breakfast,

go on deck and walk with the captain & later, with the 2nd engineer; develop some pictures (plates).

We were stopped at noon by an Italian man-o'-war which came alongside from the south after signalling & firing 2 shots for us to "stop instantly." After dinner, write & take a couple of pictures. After dinner, walk on bridge, write, talk to mate & captain & go to bed about 10:45.

Man-o'-war's name was "Guisseppe Garibaldi".

Monday, March 25, 1912.

S.S. Bramley (Port Said Harbor at night).
C.,

Arise about 7:15; go on deck & walk for exercise and with the chief & second engineer make some solio prints; spend all the morning at this. After lunch, write to Mother, G.S. Miller, Jr., and Helen Brady. We were waiting for the Pilot off Port Said when I finished writing; I then went up on deck for a few minutes & then went down in the engine room with the 2nd engineer & worked the telegraph until finished with engines. At anchor in Port Said Harbor at 10:20; talk to fellows aboard until about 12:30, when I went to bed.

Tuesday, March 26, 1912.

(S.S. Bramley) - (Port Said).
C., Cl.

Arise 6:30; look at the boats in the harbor & after breakfast go ashore with Capt. Ruthen in Port Said & do some errands & buy some post cards & photographic materials & come back about noon. In the afternoon, take a couple of pictures and with my glasses look at gulls. Start through the canal about 4:00 P.M., see about 400 flamingos & numberless shore birds & gulls on the mud flats

near the canal; evening write & talk to Capt. Ruthen.

Wednesday, March 27, 1912.

S.S. Bramley (Suez Canal & Bay of Suez).
C., Warm.

Arise about 6:30; go on deck & look at the canal & ducks, herons, flamingos, gulls, a couple of white vultures with black primaries, take a picture of a signal station beside the canal, & talk to the fellows on board & watch the passing ships come out into the bay of Suez & anchor for a short time & then go on; the weather is beautifully clear but very hot in the sun. At sunset admire the beautiful coloring in the sky & barren mountains on either side of the Bay. Go to bed about 10:00.

Thursday, March 28, 1916.

S.S. Bramley (Red Sea)
C., Warm.

Arise about 6:45 and go up on the bridge & with my glasses look at the reddish colored mountains to the east & see their summits far above the clouds, a truly beautiful sight. I do not feel well to-day. My stomach is out of order & makes me feel miserable. There are a couple of wagtails on board which I have been watching catch flies on the decks. Go to bed rather early.

Friday, March 29, 1912.

S.S. Bramley (Red Sea).
C., Warm.

Arise 6:40; my stomach is out of order and I feel miserable and weak this morning. I stayed up on the bridge and sat in my chair talking to Capt. Ruthen & stringing a few labels. See a couple of wagtails, a bran swallow & a woodpecker resembling a flicker. This afternoon I tried to print some pictures but the

paper works too fast for daylight; talk to the engineers. In the evening walk on the bridge & admire the sunset and beautiful coloring in the skies & print a few pictures; talk & go to bed about 10:45.

Saturday, March 30, 1912.
S.S. Bramley (Red Sea).
C., Hot.

Arise about 6:45; feel very weak & shaky. Sit about and talk to Capt. Ruthen & look at some birds that had lit on the spars, a sort of flycatcher. There was a beautiful sunset to-night with a dull red after-glow on the clouds. Go to bed about 10:00.

Sunday, March 31, 1912.
S.S. Bramley (Red Sea).
C., Hot.

Arise about 6:45; I still feel very weak but better than yesterday. I sat about on the bridge with the captain about all day. I saw 3 hawks, a tropic bird and 4 or 5 flycatchers on deck to-day. We also passed several steamers, two or three to-night which we could see by moonlight.

It was delightful to sit on the bridge in the bright moonlight and be nice and cool after the heat of the day. Go to bed about 9:45.

Monday, April 1, 1912.
S.S. Bramley.
C., Hot.

Arise about 7:00; have a salt bath and after breakfast look at a dove on hoard & through my glasses see tropic birds & boobies and grey & white petrels were very common; note the tropic birds dart into the water from high in the air. We passed some rocky

islands where these birds are breeding. I also saw several hawks. This morning I filled a tooth for the 1st mate, read a letter from Hazel Nelson. This evening I stayed up on the bridge & talked to the captain & mate.

Tuesday, April 2, 1912.

S.S. Bramley (Aden).

C. (A little rain early in the morning).

Arise at 4:00 & go up on the bridge & exercise with dumbbells and come down & sleep until 6:30, then go up on bridge to see a school of porpoises. Spend a good part of the morning trying to catch a night-hawk to photograph, box a little with the chief mate; arrive off Aden about 2:30 P.M.; go ashore with Capt. Ruthen & go about with him. Evening go ashore with Capt. Ruthen & Mr. Marks of Aden & spend the evening talking with Marks, his friend Mr. Week and the Captain; come on board & go to bed about 12:15.

Wednesday, April 3, 1912.

S.S. Bramley.

C., Clear.

Arise a little before 7:00 & go ashore about 9:00 & drive about Aden in a "garry" with Capt. Ruthen & Marks; buy some ostrich feathers & see the fortifications, etc. Have lunch with Marks and call on the American Consul, Mr. Schultz and have quite a talk with him.

Mr. Marks came on board for tea & we heaved up anchor about 7:00 o'clock; I stood on the bridge until we were out of the harbor & then came below. Bed about 9:30.

Thursday, April 4, 1912.
S.S. Bramley (Gulf of Aden).
C.

Arise about 7:00, have a salt bath and walk about on deck and spend most of the morning talking to the Second Engineer. This afternoon and this evening I have been sitting in the cabin stringing labels and talked to Capt. Ruthen & Chief Mate for a few minutes. Bed about 10:00.

Friday, April 5, 1912.
S.S. Bramley (Gulf of Aden).
C.

Arise about 7:00 and spend the whole day stringing labels with the exception of a few minutes spent skinning a night-hawk. Go to bed about 9:50.

Saturday, April 6, 1912.
S.S. Bramley (Arabian Sea).
C., Calm.

Arise 7:00. This morning I washed some clothes & about 11:00 a sailor (Lee Chong Hee) jumped overboard & we had much excitement getting the Chink back on board, which took about 20 minutes. He has been put in irons where he will be kept until we get to Colombo or Singapore. I saw several very large schools of porpoises & some gannets to-day. This afternoon I strung some labels & had a nap & this evening box & talk. Bed 10:15.

Sunday, April 7, 1912.
S.S. Bramley.
C.

Arise 7:00; walk about on deck & talk to engineers & mates & string some labels & after dinner finish stringing labels and go up on the bridge & read a magazine & talk to Capt. Ruthen. See a

large school of porpoises & many flying fishes. A man has to watch the man in irons continually to see that he does not hurt himself or others. Bed 10:20.

Monday, April 8, 1912.
S.S. Bramley (Arabian Sea).
C.

Arise 7:00, wash out some clothes and talk to Capt. Ruthen and mates & wash my felt hat. After lunch write to Hazel Nelson and start a letter to Florence Alexander; continue it in the evening and also start to write a letter to Dick; go to bed about 10:00.

The sunsets here are beautiful and in all directions there are cloudbanks about sunset & late in the afternoon, but are seldom noticable during the middle of the day.

Tuesday, April 9, 1912.
S.S. Bramley (Arabian Sea).
C. Temp. 84°

Arise 7:00, have a salt and a fresh bath and after breakfast read up on the bridge & talk to Capt. Ruthen; after lunch, read and have a good sleep and after tea enjoy the twilight on the bridge and come down in the cabin and finish writing to Dick and continue my letter to Florence. There are many flying fish about but very little else. Bed 10:00.

Wednesday, April 10, 1912.
S.S. Bramley (Arabian Sea).
C. Temp. 90° in shade.

Arise 6:00; go out on deck & skip rope & exercise with dumbbells for a few minutes and then have a salt bath and after breakfast the 1st mate got one of my boxes containing my medicine out

of the hold & I spent a portion of the day looking it over & re-packing it. This afternoon from the bridge I saw a very large school of porpoises & many flying fish & a snake or worm about 2 feet long. Continued my letter to Florence & finished it this evening, after standing on the bridge for an hour or so. Bed, 9:00.

Thursday, April 11, 1912.

S.S. Bramley (Off Minikoi Is. at 10 A.M.)

C.

Arise 6:00 & go out on the deck & skip rope & exercise with dumbbells, have a salt bath and after breakfast help the mate get my boxes containing my guns out of the hold, unpack, & try a couple of shots with my shotguns and this afternoon I read a couple of stories in a magazine & this evening wrote to Ludlow Raymond & have since been sitting on deck. It has now started to rain & there has been much lightning. Bed, 10:00.

Friday, April 12, 1912.

S.S. Bramley (168 Mi. W. Colombo at noon).

Clear.

Arise 5:50 and go on the forward deck and skip rope and exercise with dumbbells, have a salt bath and spend the morning talking to the fellows and sitting on the bridge reading. This afternoon I read some more, wrote to Mother and studied my prescriptions.

This morning I saw a very large waterspout but did not have any plates loaded so could not photograph it. We expect to be in Colombo early to-morrow morning; write to mother. Bed, 10:00.

Saturday, April 13, 1912.

S.S. Bramley (Colombo)

C. R.

Arise 6:00 after being up a couple of times during the night;

go ashore with the 3rd Engineer & go in a few shops with him & get in a Rickshaw & ride out to his home & meet his brother & relatives & with his brother go to the Mt. Lavinia Hotel which is a nice ride; come back to the ship about 4:00 o'clock & talk to the fellows on board & let the 2nd Engineer snap a picture of me. It began to rain & thunder & lightning about 5:30. We sailed out of the harbor about 7:00 P.M. Bed, 9:15.

Sunday, April 14, 1912.

S.S. Bramley (Indian Ocean, S.E. of Ceylon).

C., Clear.

Arise about 6:40. After breakfast I walked about the deck for a while & talked to the Second & took a couple of snaps of the captain and developed a dozen plates but I have had much trouble with them for I cannot get any cool water. This morning I saw a couple of whales blowing water apparently about 15 feet into the air. The coast of Ceylon could be seen until after noon and we passed several native catamaran fishing boats. This evening I have been talking to the 3rd about the fauna of Ceylon. Bed about 9:30.

Monday, April 15, 1912.

S.S. Bramley.

C., Clear.

Arise about 7:00. Nothing particularly interesting happened to-day. I spent most of the day reading & talking to Capt. Ruthen. The dozen plates I developed yesterday were spoiled on account of too much heat in the water.

We can see no land and the only animal life seen to-day was a few porpoises. After sitting on the bridge until about 7:00

o'clock this evening, I came down and sorted over my negatives & numbered them. Bed about 10:00.

Tuesday, April 16, 1912.

S.S. Bramley (Indian Ocean midway from Ceylon to Sumatra.)
C.

Arise a little before 7:00, have a salt bath and borrow the Chief's printing frame & trays & print a couple of pictures for the Captain and read Millers Notes on Malayan Pigs. After lunch read, look at charts and have a nap for about an hour.

Spend the evening on deck and on the bridge with the captain and mate. The weather has been delightfully clear and a good breeze about all the time. The only animal life I have seen to-day has been flying fish, mostly small ones. Bed, 9:30.

Wednesday, April 17, 1912.

S.S. Bramley.
C.

Arise at 6:00 and go on deck and exercise with dumbbells and talk to the mate and have a salt bath and after breakfast sit on the bridge & read and later fill a tooth for the second mate. Spend the afternoon reading and have a sleep for about an hour.

The weather has been clear all day but a good strong breeze is blowing; it is therefore very comfortable. Bed, 9:15.

(Write Father & Mother).

Thursday, April 18, 1912.

S.S. Bramley, (N. of Sumatra).
C.

Arise at 6:00 and go forward on the deck and exercise with dumbbells and have a salt bath. After breakfast, go up on the bridge and see land far ahead. Pulo Weh & Pulo Rondo were abean shortly after noon and I spent quite a while admiring the landscape

through my glasses.

This morning I wrote Florence Alexander. This evening I have been enjoying the breeze on the bridge & talking to the captain. There is a good strong breeze now and cool. Bed about 9:15.

Friday, April 19, 1912.

S.S. Bramley (Straits Malacca).
Clear.

Arise about 6:00 o'clock and go on deck and exercise with dumbbells and after breakfast photograph a booby and later kill and make it up as a skin. After dinner, walk about on deck and sleep from 1:30 until 3:30 and later pack some of my clothes. After supper the Chief filed the release catch on my camera. Talk to the Captain, Mate & Second until about eleven o'clock. Bed, 11:10.

Saturday, April 20, 1912.

S.S. Bramley (Straits of Malacca).
Clear, c., Hot.

Arise about 6:30, go up on deck and exercise and have a salt bath and after breakfast see the Second do some soldering and pack some of my clothes and hunt for a letter to the Consul in Singapore which has been mislaid. This afternoon I have been looking over my notes and those from Dr. Abbott and this evening go on the bridge for a while & go amidships & talk to the Chief Engineer. Bed about 9:15. There is a strong breeze blowing now.

Sunday, April 21, 1912.

S.S. Bramley - Singapore (Hotel Adelphi).
R., Clear, Very Hot.

Arise on S.S. Bramley about 6:00, go on bridge & exercise

with dumbbells & spend the morning looking at the islands on either side of the channel as we came into the harbor & talk to the fellows on board. After lunch, go ashore & to the Hotel De La Paix, see Mr. Gibson, the manager, & take a room at the Adelphi, look over my notes & after dinner walk about near the hotel & look in the shops & come up to my room, read, & write some post cards and go to bed.

Monday, April 22, 1912.
Singapore (Hotel De La Paix)
Clear, R.

Arise about 7:00 o'clock and get a rickshaw & go down to the wharf & back to the hotel, do some shopping, get breakfast & go to stay at the De La Paix & get a rickshaw, go to Goslings & get my mail & talk to Mr. Gosling, with him go to the bank & to the Am. Consul General.

Have tiffin with Mr. Figart & meet his friends, Mr. Davis & two others & later go to Goslings & do several errands. Go to 45 Arcade & meet F. Tracy & his friend Mr. Schultz, do more errands with Mr. Gosling & his son & dine with Mr. Davis, Mr. Figart & Mr. Schultz & spend the evening with them; come back to the hotel and go to bed about 11:30.

Tuesday, April 23, 1912.
Singapore (Hotel De La Paix)
Clear.

Arise about 6:45, look over my notes & after breakfast go to Goslings and to the Bramley & see to my luggage being taken ashore, say good-bye to the officers and ride about town doing numerous errands; after tiffin continue my errands and talk to

Mr. Gosling & go also to the museum for a short time. Go to dinner with Mr. Tracy at the Raffles Hotel & enjoy spending the evening with him and his companions, play a game of billiards with Tracy & bed about 11:30.

Wednesday, April 24, 1912.
Singapore (De La Paix)
Clear, R.

Arise about 7:00, go around to a jewellers & get my watch and after breakfast get a rickshaw & go to several shops doing errands and go to the shipping office with Capt. Ruthen & "sign off", go to Goslings & talk to him about my outfit & go to the Dutch steamship office. Mr. Tracy have tiffin with me and kindly give me information about boats to Borneo. This afternoon I did some errands & went to the taxidermists & met Mr. Gosling's son & talk to him about hunting; evening stay in my room & study Malay. 11:15.

Thursday, April 25, 1912.
Singapore (De La Paix)
Clear, R.

Arise about 7:00 and after breakfast go to tailors & shoemakers and to shipping masters to find out about Dolah, & go to Goslings. I also called at the museum & saw Dr. Hanitch & visited the museum taxidermist; after tiffin I went to the S.S. Office & then to Goslings & unpack a couple of my boxes & put the guns & rifle in one case, go for a walk with Gosling. Bed, 10:15.

Friday, April 26, 1912.
C., R., Cl.
Singapore (Hotel De La Paix)

Arise about 7:00 and spend practically the whole day running about doing errands, meet Dolah at Goslings at 10:00 & go to

shipping office & two or three other places with Dolah; in the afternoon, go out to the tannery on Galang Road & return to Goslings & stay there until about five; meet C. Gosling & go around to a number of shops with him; evening go to a musical concert with Gosling & come home & go to bed about midnight.

Saturday, April 27, 1912.
Singapore (Pasa Rec).
C., Cl., R.

Arise at 7:00 and do some errands & go about with Cuthbert Gosling doing shopping & looking at birds & animals in stores; in the afternoon meet C. Gosling & with him & two of his friends go out to Edw. Nathans estate & spend the night there, talk to the fellows about shooting and watch them play cards; enjoy the ride from Singapore in an auto & see some rubber plantations.
Bed, 11:00.

Sunday, April 28, 1912.
Singapore (Hotel De La Paix)
C., Cl., R.

Arise about 6:30 at Nathans estate, talk to the fellows, Boyd, Tennery, Gosling, Langie, Heitman & Nathan & go in swimming with them, after breakfast go across to an island, in a Malay sampan, meet the beaters "clings" & dogs & go to the jungle & shoot wild pigs. I shot two, but they were rather small, nevertheless I get an idea of how hunting is done in the jungle. I enjoyed the day very much & returned to Singapore about 8:30; have dinner & go to bed 10:00.

Monday, April 29, 1912.
Singapore, (Hotel De La Paix)
Cl., R., C.

Arise 8:30, go to the shoemakers, tailors & several other

places & to Goslings, get a letter from Florence Alexander, go to the Dutch Consul & to Robinsons & select a revolver & this afternoon make arrangements for my man Hadjiman to go to Samarinda with my outfit, meet Tracy about 4:30 P.M. & with him & Shultz go for an automobile ride & enjoy seeing more of Singapore Island, rubber trees & pineapples. 11:00.

Tuesday, April 30, 1912.
Singapore (Hotel De La Paix)
R., Cl. C.

Arise about 7:00, figure up some of my accounts & go to Goslings & arrange about my Serang & what I am to do in Java & several other things; after tiffin go back to Goslings & work with the men showing them how & what I wanted done; a Chinaman is fine at copying but has no originality; after five o'clock I drove about in a rickshaw & went to Mr. Goslings to dinner & met his wife & daughter & came back to the hotel & go to bed 10:10.

Wednesday, May 1, 1912.
Giang Ann.
C., Cl., R.

Arise about 7:00 at the hotel & with Hadjiman (my Serang) pack my trunk & suit case & go about town doing some errands & go to Goslings & talk over what I am going to do & arrange about sending my luggage & man to Samarinda; after tiffin, settle my hotel bill (I arranged money matters this A.M. with the bank), leave Goslings about 2:30 & go & see the American Consulate General, Mr. Figart, also say good-bye to Tracy & Shultz. Leave Singapore about 5:00; evening write Mother. Bed, 10:30.

Thursday, May 2, 1912.

S.S. Giang Ann.

Cl., Warm.

Arise early & spend the day writing and sitting on deck, write in the evening also. Go to bed about ten thirty. The day has been fine but this boat is carrying onions or garlic on deck and the odor is rank or worse.

Friday, May 3, 1912.

S.S. Giang Ann.

C., Cl.

Arise early & read & write letters the whole day; we passed a few islands but far away, too far to be able to see anything special. It has been a beautiful day, clear & calm most of the time but this evening it is partly cloudy but the moonlight is fine.

Saturday, May 4, 1912.

Buitenzorg, Java.

C., Cl. R.

Arise about 6:30 on the Giang Ann & after a little red tape, go ashore & have to open my box & show my guns to the customs officials, take a train from Tanjong Priok to Batavia & another to Welteurenden and after a zigzag ride get to the American Consulates and see Mr. Rairden & talk to him for a while & then have to return to the station to see about my ticket to Soerabaja, get lunch, see the Consul again & catch a train for Buitenzorg, go to the Hotel Belle Vue, go for a walk in the Batanical garden & evening call on Miss Gosling & meet Dr. J. Van Breda de Haan. Bed about 11:15.

Sunday, April 5, 1912.

Buitenzorg, Java.

C., R.

Arise at 7:00 & after breakfast go to the Batanical garden & get two Javanese boys as guides & walk about the garden & see many

birds & learn some Javanese & Malay words & at tiffin time talk to a gentleman at the hotel who had crossed northern Borneo, a geologist. Spend the afternoon in the Garden talking to the native boys & enjoy looking at things with my glasses. Have dinner & spend the evening with Dr. J. Van de Breda Haan, his wife, her sister & Miss Gosling, have a very pleasant time. Bed 11:00.

Monday, May 6, 1912.
Batavia, Java.
C.

Arise about 6:30 at the Hotel Belle Vue & after breakfast go to the Museum, talk to Dr. Koningsberger & one of the Curators (I had a card to Dr. Koningsberger from Dr. Van de Breda Haan), talk to them for a while & look at the exhibitions; they have a Varanus which is enormous which was collected on a small island near the Flores Is.; call on the 1st Goiot. Secretary & he sent me a letter to the "Residents" in Borneo & a permit for the use of my guns in Borneo; leave Buitenzorg at 11:36, go to Batavia, arrange money matters & go to Tanjong Priok & then come to Weltevreden & take a room at the Hotel des Indes; evening write Mrs. Franklin & go to bed about 9:30.

Tuesday, May 7, 1912.
Java.
C., Hot.

Arise in Batavia about 8:00 & after breakfast get in a 2-wheeled carriage & go to the topographical bureau & get a chart of Borneo & come back to the hotel & write; find that the train does not leave for Soerabaja until 2:46 P.M.

I got to the train ahead of time & had a long hot wait; I spent the afternoon looking from the car window at the most beau-

tiful landscape I have ever seen, spend the night in Bandeong.
Hotel Preanger; Bed about 10:30.

Wednesday, May 8, 1912.

Java.

C.

Arise at Bandeong about 5:00 & catch the train leaving at 5:50, ride all day & get very dusty & dirty & my eyes ache but I enjoyed looking at the beautiful fields of rice & cane & also see many groves of cocoa-nut palms & rubber trees; birds were numerous, herons especially. Large numbers of water buffalo and goats and also domestic cattle were a common sight. The Javanese seem to spend all their spare time bathing in the canals & creeks; get to Soerabaja about 7:00 P.M., go to a hotel & evening go to a picture show with a fellow named Competz & come home & get to bed at 12:30.

Thursday, May 9, 1912.

Java.

Soerabaja.

C.

Arise about 7:00; I do not feel very well, I have a cold in my head.

This morning I went to the station & got my trunk & box of guns & when I got them to the Hotel I took my guns out & greased them; one of the shot guns is rusty. I repacked my trunk & this afternoon learn Malay words & go to the steamship office & to several stores before I could get some cholera belts, try to get some charts of Borneo but can get nothing better than I have; evening study Malay. Bed, 12:00.

Friday, May 10, 1912.
Sourabais, Java.
C.

Arise about 7:00 and after breakfast go around to the Oranje Hotel and buy my steamer ticket to Samarinda and then return to the hotel and spend practically the whole day learning Malay words and their meaning; after dinner in the evening go for a walk and then home and go to bed.

Saturday, May 11, 1912.
Java Sea.
C.

Arise in Soerabaya about 7:00 o'clock and pack my clothes & get a rig to drive me to the steamer which was about an hour's drive from the hotel, then wait at the custom house for another hour & go in a launch to the steamer (Da Haan). There are four other men on board whom I met that are going to Borneo, one a Prof. of Zoology in a Dutch college. This afternoon I had a nap and studied Malay; bed about 11:00.

Sunday, May 12, 1912.
Banjamarin, Borneo.
Cl. R. C.

Arise on the steamer about 7:30 & go out on deck & talk to the other passengers whom are all good fellows and very interesting to talk to; they gave me a lot of Malay words to learn of mammals, birds, etc. and one Heer AhaA van der Does De Bye, an oil prospector of many years experience in Borneo gave me much valuable information. Late this afternoon we came abeam of land; the water was full of clumps of vegetation drifting out with the tide; when we came near the shore of the Barito R. we saw many Malay hute sampoins & birds & a couple of monkeys. Go ashore in Banjemasim.

Monday, May 13, 1912.
Bandjermasin, Borneo.
C., R., C.

Arise 7:00, have breakfast with Dr. Sunier, Mr. Versluys & Mr. vander Does de Bye and after breakfast call on the Resident & walk down to the wharf & through the main street; after tiffin, go in a sampan with Dr. Sunier & the Kepala kampong & visit the native fisherman & see their nets, etc. & learn some more native words. In the evening talk to Mr. van der Does de Bye about boats, the jungle, natives, etc. I have to wait here for the boat to Samarinda which is late. After dinner sit on porch; bed, 10:30.

Tuesday, May 14, 1912.
Bandjermasin, Borneo.
C., R., C.

Arise about 7:00 and after breakfast call at the Controller's house with Dr. Sunier & Mr. Versluys & see the Controller's collection of skulls, skins, etc., & a live Orang-utan & other birds, etc. Return to the hotel, talk to Mr. van der Does de Bye & spend the afternoon writing to father & to Florence and after dinner write and study Malay words; also talk to Dr. Sunier & look at maps of Borneo.

It is delightful here, the whole place consists of but few houses & all near the river which is the highway & there are no beasts of burden. Bed about 11:30.

Wednesday, May 15, 1912.
S.E. Coast of Borneo.
C., R., Cl.

Arise about 6:30 and have breakfast with Dr. Sunier & write Florence & start a letter to Jim Clark and about 11:00 o'clock start for the boat with the Dr. & stop at the custom house and go

on board the boat & meet several Dutch people that are going on an expedition to the border of Sarawak & Dutch Borneo; spend the afternoon talking to the people on board & admiring the beautiful scenery as we going down the Barito R., sleep on deck as all the cabin is occupied.

Thursday, May 16, 1912.

Pulo Laut.

Cl., R., Cl.

Arise about 6:00 and talk to the people on board. This morning when I arose we were steaming between Pulo Laut & Borneo; we stopped at two places on Pulo Laut, the second one being Kota Baroe. I went ashore there with 3 other fellows & to the Controller's residence & had something to drink. It was very interesting to watch the Malays fishing with nets near the shore. I spent a lot of time watching eagles & hawks with my glasses & looking at the jungle and hills, both in Borneo & on Pulo Laut. We left Kota Baroe about 5:00 o'clock; spend the evening talking, & sleep on the deck. Bed about 11:30.

Friday, May 17, 1912.

Balik Papan, Borneo.

Cl., R., Cl.

Arise about 6:30; as we are going into Balik Papan, look at the oil wells & what there is of a town with my glasses & go ashore with the Doctor & a couple of other men & call on the Controller and with him visit several other places & meet the Chief Surgeon at the Royal Dutch Hospital; also call on the Manager of the R.D. Oil Co.; spend the latter part of the P.M. & evening on the boat; just before dinner, go up on the bridge with the captain & others & drink & talk.

Saturday, May 18, 1912.
Balik Papan, Borneo.
C., R., C.

Arise about 6:45 & after breakfast go out in a launch with Dr. Sunier & Vanbrouhorst & visit two malay kampongs and talk to the natives & see their boats, nets, etc. When we were returning the launch ran on a shoal & stuck & we had to paddle back in a small boat which took about an hour & then change my clothes & talk to my fellow passengers; after dinner, walk on deck & sit on deck, and go to bed about 11:00 o'clock as the boat is leaving for Samarinda, sleep on deck.

Sunday, May 19, 1912.
Samarinda, Borneo.
C., R., Cl.

Arise on the steamer about 6:30 as we were coming up the delta of the Mahakkam, sit on deck & talk & look at the beautiful nepa palms & other trees on either side of the river; arrive at Samarinda about 9:30 & go ashore with Dr. Sunier. My man met me at the boat; my things are being held in the Custom House. Call on the Assistant Resident & spend the morning & part of the afternoon there, walk & go to the Koetel Club with Lieutenant Vermeer & Dr. Sunier; evening dine with the Asst. Resident & meet Mr. Gray & 2 other people; sleep at the Government house 12:00.

Monday, May 20, 1912.
Samarinda, Borneo.
C., R., C.

Arise about 6:30 and get a sampan & with Hadjiman paddle across the river and up the other side for a mile or more and look at several praws & sampans but find nothing that is exactly suitable for my purpose. I cannot get my outfit from the customs so have

telegraphed the Resident in Bandjermasin. Have supper with the 2 naval officers here at the house and talk to them in the evening and also Mr. Vermeer who came around to see me, talk & go to bed early but could not sleep.

Tuesday, May 21, 1912.
Samarinda, Borneo.
Cl., R. C.

Arise about 7:00, have breakfast with the two fellows here & go & see Mr. Spann, the Assistant Resident & talk & walk with Lieutenant Vermeer & go to the Custom House with him; also go to the Barbor Master's office & see some charts, come back to the house and spend part of the afternoon planning just what I am going to do and later go around to Mr. Spaan's & learn from him & Mr. Vermeer more about the habits & customs of the natives; bed about 11:00.

Wednesday, May 22, 1912.
Samarinda, Borneo.
R., Cl., C.

Arise about 7:00 and after breakfast interview some natives regarding taking them with me as boatmen, etc.; later go to the Custom House & to see Mr. Gray and talk to him about the use of his shed for putting my outfit in and also learn how dangerous crocodiles are in this part of the country. Afternoon write & later figure up my accounts, also in the evening & have chow & talk with the fellow here in the house and bed 11:30.

Thursday, May 23, 1912.
Samarinda, Borneo.
R., Cl., R.

Arise 7:30, interview more natives about being my crew & go to the Post Office & get several letters & go to see the Assistant

Resident regarding taking men from Samarinda and talk about shooting in the jungle and travelling in Borneo; return to the house, read my letters & in the afternoon go to the Custom House, get my outfit and have it taken to Mr. Gray's shack where I will repack it. Evening talk to the two men here at the house & learn more Malay.

Bed about 10:30.

Friday, May 24, 1912.
Samarinda, Borneo.
C., R., Cl.

Arise about 5:00 & go to Mr. Gray's early and work there all day getting my outfit repacked and keep my four men busy, have tiffin with Mr. Gray and meet his wife & daughters, go to the Custom House about noon & settle with them for the duties on my goods. In the evening talk to the fellows at the house & look at the stars. I wish I could make things go quicker; not being able to talk makes everything difficult and am going to bed without writing as I thought I should.

Saturday, May 25, 1912.
Samarinda, Borneo.
C., R.

Arise about 6:00, go to Mr. Gray's, get my men to work and finish packing. The man I expected to take as cook did not show up on time so I have decided to let Ajat cook as he says he can do it. The packing and getting things into the prau took so long that I was unable to start to-day. This evening I went to a Chinese store and ordered my provisions; talk to the fellows at the house in the evening.

Sunday, May 26, 1912.

Leave Samarinda.

Cl., C.

Arise about 6:30, do a little writing and go to see Mr. Spaan the Assistant Resident & go to Mr. Gray's & see about leaving my cartridges there & get the provisions for a month on the prau, then go back to Pasang Grahaut, pay my bill for staying there, say good-bye to the 2 fellows at the house and about 3:00 leave Samarinda in my prau with 4 coolies to go to Batae Panggal for a short time, reach Batae Panggal after dark & make camp & set some traps & talk to the natives of the kampong.

Monday, May 27, 1912.

Batae Panggal.

C., R., Cl.

Arise about 5:45, take my shot gun and with a native boy go and shoot some small birds and a couple of animals the size of a chipmunk without rodents teeth, skin the birds and squirrels & in the afternoon with five or six natives go into the jungle & up the mountains, return to camp and after dark go with several natives Jacking for animals but have no luck; the moon is too bright. Return to camp about 3:00 A.M.

Tuesday, May 28, 1912.

Batae Panggal, Mahakkam River N. Side.

C., R., C.

Arise about 7:30 with some natives, men & boys, go with my gun & shoot some squirrels & get a couple of birds; walk about three or more miles but get nothing good as I have been told not to go in the jungle alone. I do not like to do so but I cannot get much with the natives; they continually talk and make a noise. Late in the afternoon go to a padi field & set many traps for rats, mice, etc., return and after eating go to bed rather early.

Wednesday, May 29, 1912.

Batae Panggal.

C., R., C.

Arise 6:00; with some natives, about 8 or 10, go into coconut groves & shoot four squirrels; it is much harder to see animals than I expected and about half of those shot cannot be found on account of the dense jungle; skin the squirrels, a rat and a green pigeon and go after more pigeons but only see some at a distance but see some monkeys (*moenjet*) but could not get anywhere near them; return to camp rather disgusted. Bed early.

Thursday, May 30, 1912.

Batae Panggal, N. Bank of Mahakkam.

C., Cl., R., Cl.

Arise about 6:00 and with some natives from the kampong go out and hunt, get some snakes and go further along the river and into the jungle but was unable to get any orang utan, return to camp; I do not feel extra well; get a kijan (*Muntjac*), skin it, mix some salt & alum, pickle and put the snakes in my alcohol tank. I intended to try and get some pigs to-night but gave up the idea as it is not moonlight enough to see and too light for a jack.

Friday, May 31, 1912.

Mahakkam River.

C., Cl., R.

Arise about daylight at Batae Panggal, break camp and start for another kampong further up the river; in the prau all day. It was very hot and current was very strong most of the way. Late this afternoon on the north bank of the river were a band of Munyit and I shot one; we stopped on the bank of the river to cook and as the current was very strong, decided to wait until morning before continuing; sleep on the prau. After having several showers, it is a fine night.

Saturday, June 1, 1912.

Lo Bon Bon, Mahakkam River.
C., R., C.

Lo Bon Bon

Arise at daylight and start on towards Lo Bon Bon and the morning is beautiful, slightly cloudy but very calm. I shot at a crocodile in the water but did not get it. We reached Lo Bon Bon about 8:00 and while I was skinning the munnyit I got yesterday my four men were making camp but they were very slow about it. Afternoon go with a native in a sampan & shoot 2 munnyits & some birds. The stream we were on was typically tropical; the natives are very nice and take quite an interest in watching me skin animals.

Tuesday, June 4, 1912.

Lo Bon Bon.
C., R., Cl.

About daylight go with Ajat (my man) to see my traps & get one rat and shoot a small squirrel after cutting my way through dense underbrush for a long way, return to camp and later start out and go up the little stream with Gindum in a small sampan & shoot a squirrel and a small bird & get drenched with rain, change my clothes & skin the squirrels, rat and bird and again go out and hunt but with no results; return & eat my evening meal of rice & eggs & tea and bed about 8:30.

Thursday, June 13, 1912.

R., C.

Nothing particular happened to-day. This afternoon I went with Usup, a native, to a place about $2\frac{1}{2}$ miles from here and tried to find the cave where I saw so many small bats about a week ago. We hunted for this cave for about 3 hours but were unable to find

it. I have decided to go back to-morrow with Hadji and try and find it. I may take this native Usup with me to the Bereaw for he seems much better than the natives I have.

Friday, June 14, 1912.

The morning was spent skinning and preparing specimens and at 1:00 o'clock I went with Hadji & Ajat about $2\frac{1}{2}$ miles east to a cave and shot 20 small bats; we had difficulty in finding this cave for we just happened upon it before & did not note the locality closely. The natives like to hunt and when animals can be gotten there is no difficulty in getting the natives to go, to show the way and they always seem willing to do as I wish.

Saturday, June 15, 1912.

Lo Bon Bon.
Cl., R., C.

The two native Malay boys caught a couple of rats last night and those and the bats I got yesterday kept me busy as could be until about three o'clock this P.M. when the natives were ready to take me down the river to shoot red monkeys; we went down as far as Gosong Djerong & to the other side of the river; I shot three monkeys, fine specimens, and a couple of birds including a large kingfisher (Ber ka ka). Returned to camp about 8:00 o'clock and after makan (supper) I went to bed without much delay.

Sunday, June 16, 1912.

Lo Bon Bon.
Cl., R., C.

I started early this morning to prepare the specimens that I shot yesterday; I had all four of my natives busy skinning or rather cleaning the bones of monkeys. The natives (Malays) like to watch me skin animals but they do not like to do it themselves.

and therefore are very slow and do not mind cutting or tearing a skin. This P.M., I hunted and this evening went with a Bugis after pigs but as usual did not get any. This Bugis is the first native I have been with who carried a spear.

Monday, June 17, 1912.

Lo Bou Bou - Tangarceng.

F., Cl., C.

This morning I skinned some birds and preserved some large snakes that Usup caught in the Mahakkam. I packed my things and left Lo Bou Bou for Tangarceng. The Rajah sent his launch to tow my prau & I enjoyed the trip. When I got here I talked to H. M. Per Mangko (King of Koti) and went with a native guide to the other end of the town. I met Mr. Olmeyer and called on Mr. and Mrs. Robinson. I am spending the night with H. M. Per Mangko. The natives of Lo Bou Bou were very nice & I was really sorry to leave them.

Tuesday, June 18, 1912.

Tangeroeng.

I looked over my alcoholic specimens this morning and properly prepared the large snakes I got yesterday and also the embryos of another large snake; this finished, I went with some natives to the jungle near by on this S. side of the river and shot some birds, a squirrel and 13 bats which I found in trees. These bats are small fruit bats; it happens that 10 of the 13 are female. I will have to work all night on these skins.

Wednesday, June 19, 1912.

Tanggarceng.

I finished preparing my specimens of yesterday about noon

to-day after having worked all night. The bats took a great deal of time and as I got very sleepy I worked very slowly but had I waited my specimens would have spoiled. I had my men bring some of my boxes into a shed of the Rajah & after getting some birds catalogued I went to the other side of the river and tried to get some red monkeys but was unable to do so. I did, however, get one very young one, the parent of which I wounded.

Thursday, June 20, 1912.

As I had several specimens to prepare I did not go out early this morning but later went to the Island with some natives. I saw 2 large monitor lizards but got neither of them as the jungle was very dense & had I shot their skins would have been ruined.

Saturday, June 22nd, 1912.

Tanggaroeng.

R., Cl., C.

Had it not rained early this morning the Rajah would have gone with me after animals but it rained nearly all the morning so I spent my time preparing mammal & bird skins. After lunch, the Rajah's son & a Malay official came to see me and later I went with them to get squirrels as they knew where there were black ones; we did not see any. I stopped with them & had tea at the Sultan's palace, a beautiful place.

Sunday, June 23, 1912.

Tanggaroeng.

R., Cl., C.

We left Tanggaroeng early this morning in the Rajah's steam launch; after going up stream for about an hour we stopped at a Kampong on the North bank of the river and waited there for coal

for the engine. The coal had to be dug from the ground. We continued on up the river to a Kampong named Djonglankop on the North bank of the river where we spent the night. This afternoon we saw three Orong-utan and went on the bank but could not get to them though we waded some distance in 3 feet of water and mud. I am sleeping in a Malay house and before morning will go out to hunt pigs.

Monday, June 24, 1912.

Tanggarong.
Cl., R., C.

At about 2:30 this morning I went with a native with a lantern and hunted for about 2 hours but got nothing though I saw one animal, I know not what. At 6:30 we started out again and I got four squirrels, which seem slightly darker than those on the South side of the river. I hunted for about 3 hours and then got in a sampan with Ekoy, the Rajah's son and 4 natives & started for Tanggarong; on the way get a mouse deer which was driven into the water by a dog; see a tree literally covered with eagles.

Tuesday, June 25, 1912.

Tanggarong.
R., Cl., C.

I got an early start this morning and worked all day skinning squirrels, a mouse deer and a number of rail which the Rajah's men caught in the rice fields. The Rajah seems interested in what I am doing and has told his men to bring him all the birds they can get. I wish they would bring mammals, but these seem much more difficult for them to get.

Wednesday, June 26, 1912.

Tanggarong.

R., C., Cl.

Arise early and work on day skinning and making up skins of animals and late this afternoon I went with a native to the island of Tanggarong but got no specimens; I saw a large red monkey but could not shoot. After dark I skinned a small bittern and later developed some pictures and went to bed about one o'clock.

Thursday, June 27, 1912.

Tanggarong & Loa Bambau.

The early part of the morning I spent packing my things and after taking a couple of pictures, one exterior and one interior of the Rajah's house, I said good-bye to Ekoy and the rest of the household except the Rajah who is in Samarinda, and at about 11:30, I kept near the North bank of the river and go ashore several times but get nothing; after dark, or rather by bright moon light, I hunted for pigs but saw or heard nothing. I went with the Bugis man; sleep at the house of the kepala kampong.

Friday, June 28, 1912.

Mahakkam R. & Samarinda.

C., Hot.

I left Loa Hambau about ten o'clock this morning and had the men row slowly & keep close to the bank of the river, hoping to see some monkeys; I went ashore at Djambajan and shot a couple of squirrels & some small birds. This is the largest settlement between Samarinda and Tanggarong & has a Chinese store. I walked up along the bank of the Djambatjan R. for about a mile but it was just midday & very hot with little or no animal about; reach Samarinda at 6:00 & have dinner with Mr. Gray; bed about 2:00 A.M.

Saturday, June 29, 1912.

Samarinda.

C., Cl., R.

Last night I paid off Gindum & Atjat & Napis & this morning had Napis & Hadjiman put my things in the godown & take the prau back to its owner. When I finished skinning birds I called on Mr. Olmeyer & on his bicycle went to the Post Office & got lots of mail & called on the Assistant Resident & returned to Gray's and read my letters which I was more than glad to get, even though the news was a couple of months old. The Boy from Singapore is vicious & is causing me a lot of trouble. This evening I went for a walk & to call on Mr. Olmeyer with Mr. Spaan. Return to Pasang Grahan & go to bed about midnight.

Sunday, June 30, 1912.

Samarinda.

I got up late this morning & spent the better part of the day writing & reading my papers from home & about three o'clock took a bird around to Gray's godong & put it in alcohol & talked to Mr. Gray & Mr. Olmeyer & spent the evening & had dinner with Mr. Gray and some of his friends & stop & talk to Mr. Olmeyer on the way home.

Monday, July 1, 1912.

Samarinda.

First thing this morning I went to the Post Office & wired for Dolah & then did several other errands including going to the Custom House, the Bank & then to Mr. Gray's where I worked sorting over my things & getting them put away compactly. I had just got nicely started working when it was time to stop. I came home, did some figuring & then wrote until about 11 or 12 o'clock and went to bed.

Tuesday, July 2, 1912.

Samarinda.
C., R., Cl.

Arise at 6:00 and meet Mr. Olmeyer at his house & with 3 natives & him go up the small river by his house and, after having gone a couple of miles, shoot a munyit & a bekantan, both nice specimens. Having gone up to river about 10 miles, we borrowed 2 horses & rode to an oil boring 12 miles back in the jungle, where an American was, named Buchanan; we had tiffin with him & when it had stopped raining returned, got in the sampan, shot another Bercantou & an owl & stopped & waited to see pigs; got none; got to bed about 2:30 o'clock.

Wednesday, July 3, 1912.

Samarinda.
Cl., R., Cl.

Arise about 6:30 at Mr. Olmeyer's and after breakfast skin the owl I shot last night and then start to skin the monkeys; have dinner with Mr. Olmeyer & continue my work until five o'clock, then put the skins in the pickle barrel and change my clothes & come home about dark. This has been a tiresome day and one of the first that I have noticed which is close and depressing, although it did not rain but very little; evening do a little writing & go to bed early, not feeling any too well.

Thursday, July 4, 1912.

Samarinda.
C., R.

First thing this morning I went to the P.O. & then started for Mr. Gray's & met Mr. Olmeyer who went with me to get some salt, when I went to Mr. Gray's where I stayed until 5:00 sciving the skins of the monkeys & cleaning their skulls & drying the rest

of my specimens, also talk to Mr. Gray and learn much about the country from him as he has been here for over thirty years; talk to Olmeyer on the way home.

Friday, July 5, 1912.
Samarinda.
R.

This has been a very rainy day & I am told it is typical keitei weather. I went to Mr. Gray's this morning & spent the whole day there; after 5:00 o'clock I had tea & talked with Mr. Gray & also stopped for a few minutes with Mr. Olmeyer; from both these men I get much information which I am sure will be of value to me. I have been going over my outfit & getting things packed ready to start for the Beweaw when Dolah comes from Singapore which is liable to be most any time within a week. This evening I am developing a half dozen plates exposed about a week ago.

Saturday, July 6, 1912.
Samarinda.
Cl., R.

I have an itch that at times almost makes me frantic; I hope it won't last long. I did many errands and got some traps and took them to Mr. Olmeyer's & he caught me some rats. This afternoon I put my skins out to dry & skinned down the skin of a munyit & a mesung & talked to Mr. Gray at the same time & when I came back to Pasang Grahman, found a couple of birds here from Mr. Spaan & after dinner skinned them & three rats & it was very late when I got to bed.

Sunday, July 7, 1912.

Samarinda.

R., Cl.

When I got up this A.M. at 4:30, it was raining. I therefore thought Mr. Olmeyer would not go shooting but he sent for me about 7:30 & he went up the creek (Marang Moemoes) for about 3 miles to the house of a Bugis, but as this man did not have his dogs there was nothing to do but return. I had tiffin & spent the afternoon with Mr. Olmeyer & met Radin Scharif Nilo Perbongsa and his wife who is a sister of Pangeran Mangko. These people have asked me to come & stay with them when I visit Sangkoelirang Bay.

Monday, July 8, 1912.

Samarinda.

C., R., Cl.

Arise about 6:45 & go to Mr. Gray's & get my skins out to dry and have to scrape them and every few minutes change their positions to insure even drying as the heat is intense. My shoulders and arms now feel the effect of it and perhaps to-morrow will be sore and sunburned. After leaving Mr. Gray's I stopped in and talked to Mr. Olmeyer until until a shower passed in about an hour; after dinner I went for a walk & then went to bed at 9:45.

Tuesday, July 9, 1912.

Samarinda.

Cl., Cl.

I got to Mr. Gray's early and put all my skins out to dry & catalogued some bats; this has been a fine day for drying skins, and after noon a Bugis brought me a porcupine which I spent a good part of the afternoon preparing as the skin was exceedingly tender. I also made up the skin of a plandok which has been in

pickle. About 5:00 o'clock I went to the P.O. & then returned to Pasang Grahah & Mr. Olmeyer called and talked for a few minutes.

Wednesday, July 10, 1912.
Samarinda.
C., R.

Arise about 6:40 and go to Mr. Olmeyer's & there meet 2 Bajows & talk to them regarding taking me to the Bereau with their sapit; take them to see my things & then go to the Asst. Resident's with Mr. Olmeyer & get a letter to the chief of Pulo Derawan & go to stores & order some of the supplies that I will need for the journey; have tiffin with Mr. Olmeyer & then go to Mr. Gray's, put my skins to dry & catalogue my birds, see the Bajows & Mr. O. and come back to Pasang Grahah at 7:00; after dinner write Dick and Helen & go to bed about 11:30.

Thursday, July 11, 1912.
Samarinda.
Cl. C.

I was up at 6:30, went to the P.O. & mailed a couple of letters and then went to a Chinaman photographer's & left a couple of plates there to be printed & then went to Mr. Gray's and scraped the skin of a porcupine, put my skins out to dry & have to spend much time watching them and turning them about every few minutes. This afternoon I went out on the river in a sampan with a native and shot a monitor lizard 56 inches long. I also carefully examined my alcoholics & saw that they are all numbered.

Friday, July 12, 1912.
Samarinda.
C., Cl., C.

6:25, have Mr. Olmeyer's bicycle, go to P.O. & send a half dollar to Leonard Marthen & go to photographer's with a couple of

plates, then to Olmeyers, see tailor & later go to Gray's godown and get skins out to dry & pack my traps & get out more new ones, return to Pasang Grahah for lunch & then back to Gray's, talk to Mr. Gray while cleaning & re-wrapping bird skins, leave there at 5:00, go to Olmeyer's & return to Pasang Grahah, have dinner at 8:00, read a Singapore paper & evening look over my accounts.

Saturday, July 13, 1912.

Samarinda.

Cl.

Arise 5:00 & go to Gray's godong & work there all day packing and unpacking all my things & getting them ready to put in the prau, opening the barrels & taking out those things which I want to take with me & replacing the rest, to remain in the godong. After 5:00 o'clock I went over to Mr. Olmeyer's & talked to him for some time & decided to spend the night with him, & go out with a lamp & shoot a large brown musung, & then go to bed about 12:00; had dinner with Mr. Gray.

Sunday, July 14, 1912.

Samarinda.

Cl.

Arise about 6:00 & go to Mr. Gray's & skin the musung I shot last night & then continue packing & skin out the body of the monitor I had in alcohol & give the men some of the boxes to put in the boat, work until 3:00 P.M. & then go to Mr. Olmeyer's & have dinner with him & go to Pasang Grahah & evening write Mr. Gerrit S. Miller, Jr. & figure my accounts & get to bed very late, possibly 2:00 o'clock.

Monday, July 15, 1912/

Samarinda.

Cl., R.

5:00, go to Gray's godong & pack & have the men carry out all

the loaded boxes & put them in the sapit & in the afternoon borrow Mr. Olmeyer's bicycle & do many errands about town & get money from the Borneo Sumatra Handel My. & as the Bajows do not want to start until to-morrow morning, I made a picture of Mr. Olmeyer's family and went to the photographer's & for a bicycle ride with him & spent the night at his house & got to bed about 11:30.

Tuesday, July 16, 1912.
Mahakkam R.
Cl., C.

Arise at Mr. Olmeyer's about 6:00 & have breakfast with him & then go to Mr. Gray's & see to getting the rest of the outfit on the Bajow's prau, pack my clothes in a box & leave my good clothes at Mr. Olmeyer's in my trunk. Have more trouble than usual in starting as the Bajows said they could not load my pickle barrel, which was finally done, say good-bye to Mr. & Mrs. Gray, Mr. & Mrs. Olmeyer & several others & after going to the P.O. & getting a letter from Dr. A. & F.A. leave Samarinda in the Bajows' prau & go down the Mahakkam; catch a young munyit.

Wednesday, July 17, 1912.
N.E. coast Borneo.
R., Cl., R.

5:00; we slet in the sapit in the mouth of the Mahakkam, Moera Badak, & started out at daylight; it was raining & nasty/ We followed the coast at a distance of from 1/2 to 2 miles & passed very close to Pulo Barat Basa. I can see that the Bajows are good sailors & know the coast. Yesterday, coming down the Mahakkam, they stopped & cut a palm (pandan) & to-day cut the leaves in the shape of a fish & used it like a blue fish squid & caught a fine fish. As it was raining we stopped for the night at (Sangata Moera.)

Thursday, July 18, 1912.
Sangkoelirang.
R., C., R.

Arise at daylight & set sail. It was raining, but nevertheless a beautiful sight as the rain showed up the distance of the hills away from the sea. The coast all along is heavily forested right down to the water's edge & with only here & there anything of a shore or beach. There was practically no wind the greater part of the day & very hot & I got sunburned, but late in the afternoon we were struck by a squall & ran in behind Pulo ~~Miang~~ Ketchil and spent the night there.

Friday, July 19, 1912.
R., Cl.

Arise just as it was getting light & set sail, for we have a long way to go. The wind was strong all day until we got around Tangong & then there was none, but this gave me a chance to study the shore with my glasses & I had the pleasure of seeing a big wild pig & several large herons & storks & some eagles. We had to row a long ways after dark & I took an oar as I needed exercise. My feet got badly sunburned yesterday & are very painful & swollen. I was surprised how well this prau sails in rough water, fully as well & much drier than our boats at home.

Saturday, July 20, 1912.
C., R., Cl.

Arise at daybreak. (The Bajows' (Orang Laut) names are C/Ø.Nyia, Ø.Poela, Distila & the boy Medarip). We are anchored to the east of telok Selimatt and as C, Nyia was selling some of his rice here I went ashore & shot a few birds. We left the island about 10:00 or 11:00 o'clock; it was very hot & there was practi-

cally no wind; they sailed & rowed all day & until late at night and finally anchored near Tangong Boeaja Boeaja. After sunset there was just a light breeze & a little moonlight.

Sunday, July 21, 1912.
Pulo Balik Koekoep.
C., R.

Arise on the Bajows' prau at daylight & set sail for Pulo Balik Koekoep, a very small island about four or five miles from the mainland. It was about an hour's sail or more and just as we approached the island, several praus were leaving to go fishing. We stopped at this island for about 2 hours; it is about 3/16 of a mile long & planted with coconuts. There are no mammals & but few birds. I saw small white herons, a pair of sea nesting eagles, kingfishers, a flycatcher & a pair of shrikes. We stopped at this island for about an hour & then headed northwest for Pulo Derawan & sailed all day; part of the time there was no wind; very hot.

Monday, July 22, 1912/
Derawan.
C.

When I awoke this morning it was still dark or nearly so, the moon having just set. Si Paula pointed out to me the different islands and we could see them in the distance, though very indistinctly. We approached Derawan at daylight & sent the boy Medarip ashore to get a sampen to take the rest of us in; when I went ashore, I was followed by the entire Kampoeng to the house of the Kepala & there met a Chinaman, Si Chin, with whom I stayed. I had all my things brought to his house. Shoot some birds & make up their skins.

Tuesday, July 23, 1912.

Derawan.

C.

Arise early & with a couple of boys go & collect some small birds; kingfishers & sun-birds were the principal ones.

Monday, July 29, 1912.

Berace & Tanjong Redeb.

C.

I slept on the cabin top & did not awaken until long after sunrise to learn that we would be in Tanjong Redeb in about half an hour. I went to the Customs House & the official there gave me information & sent his men on errands for me. The Controller was not there but I met him on the river this P.M.; I secured passes for Si, Ambang, Distila & Si Ambang's brother. I bought rice, milk, flour, vegetables, an anchor & cable & water carriers for the prau. Left Tanjong Redeb at 2:00 P.M. & start for Karang Tigau; shoot 6 monkeys on the North bank of the river.

Tuesday, July 30, 1912.

Berace to Karang Tigau.

C., R.

When I awoke shortly after sunrise we were slowly sailing down the Berace or rather drifting down that river. The wind was from many directions during the day but always light. I spent a good part of the day finishing preparing the skins of the monkeys I shot yesterday afternoon & late this afternoon shot some curlew plover & knot on a shoal; as a squall came up suddenly, we stopped; we have stopped for the night just to the south of Tg. K. Tigau.

Wednesday, July 31, 1912.

Karang Tigau.

C., R.

Arise shortly after daybreak & have the men row & pole the

prau along the shore & I finally decided to make camp at the mouth of the Karang Tigau River; as the water was low we could not get the prau near shore; I put the men to work building a small house & then take my rifle & go down the beach & shoot a small pig; Giap Sung helped me skin it on the beach & that finished, I helped get things ashore & after dark about 12:00 go along the beach but did not get a shot at a pig.

Thursday, August 1, 1912.

R.

Spent the morning sciving the skin of the pig.

Sunday, August 4, 1912.

Karang Tigau.

C.

Arise about 8:00 & skin a musung & 2 plandok & as soon as the tide fell I started off along the beach to hunt for the crocodile I shot at last night; we walked N.W. along the beach for about 5 miles & I shot a monkey & some small birds & on the way back shot at a large pig but did not get it as it was far away, about 300 yds; I also shot a white headed brown eagle. Distela & Caiman are good jungle men & I hope to get a lot of pigs before very long. After makan, go to bed; I am tired out.

Monday, August 5, 1912.

Karang Tigau.

C., Cl., R.

Arise at daybreak & see a big pig up the beach; shoot but did not get it. Spent the most of the day skinning & in the afternoon go south along the beach with Caiman & Distela & shoot at a fine big pig but he ran off; we followed it into the jungle for a ways but lost the trail as it got dark; after dark, go with the lamp & see

crocodiles but did not get a shot at them.

Tuesday, August 6, 1912.

Karang Tigau.

R., Cl., C.

Arise at daylight & spend the early part of the day in camp preparing skins of the animals I shot last night; about 1:00 P.M. go up the Karang Tugau R. in my sampan with Caiman & Distela; after going up stream a short distance we went in the jungle but walked only a short way when a hard rain made us return to camp; change clothes & hunt along the beach for about 2 miles & after dark walk along the beach in the opposite direction & shoot a musung & plandok & see many plandok & see many plandok & also a crocodile; return to camp about 10:00 or 11:00 o'clock.

¹⁷⁷
Wednesday, August 21, 1912.

Karang Tigau.

Between hunting & preparing specimens at night, I have had little time to write. At Karang Tigau I made camp on the North side of the mouth of the river among a few coniferous trees, resembling our white pine. The ground was sandy & just above high water mark & thus dry & fine at this point. The beach runs N.W. & S.E. To the northward as far as I went (about 10 miles) the beach is all fine white sand but the reefs are not all sandy; in some places are small rocks of sandy formation & in other places the reefs are inclined to be muddy. The coast here, at the edge of the jungle, as is all the coast of Borneo that I have yet seen, is lined with logs & fallen trees of all sizes.

Sunday, August 18, 1912.
Karang Tigau.

Leave camp about 2:00 P.M. with Kaman & Distela & hunt along the shore to the south of the river & then go into the jungle; and after hunting for about an hour in the jungle could not find our way out as the sun was obscured; reach camp about dark & hurriedly begin to break camp & start for Tanjong Batoe. We had to get away from Karang Tigau while the tide was high. There came a light N.W. breeze & we headed straight for Tanjong Batoe; I felt weak & perspired profusely.

Monday, August 19, 1912.
Tanjong Batoe.

When I awoke on the prau this morning we were close to Tanjong Batoe; Ambank, Kaman & Distela immediately set about making a camp. I feel weak & have some fever; stay on the prau, sleep a little & when we had made camp I stayed about camp & went to bed shortly after dark.

Saturday, September 7, 1912.
Tandjong Redeb.

As soon as the tide began to flood this P.M. we left Tandjong Redeb & sailed up the river & rowed up the Birang R., anchoring for the night where the tide turned. Shot some birds just before dark.

Monday, September 9, 1912.
Tandjong Redeb.

Left Tandjong Redeb at daylight in heavy sampan with Mohamid; paddled up the Birang until 1:00 P.M. against a strong current; spent the afternoon skinning two large proboscis monkeys. About midnight go jacking with a couple of natives; no gains; heavy mist

like a fog.

Tuesday, September 10, 1912.

Birang River.

Rain.

Making camp with Ambang, Mohamid & Pabis on the north side of a bend in the river known as Blatok.

Wednesday, September 11, 1912.

Birang River.

Clear.

Spent the morning hunting & sciving down a deer skin. Collected a fine large tupia that came in camp & made a noise among some tins.

When a grandfather dies, his son takes his name; therefore, Si Miow's father is named Si Bung Miow for his father was named Si Miow.

Friday, November 22, 1912.

Kedong, Orong Segah.

When the padi is put in the ground, no one must pass up the river for 7 days; that is, until the padi comes up so that it can be seen above the ground.

There are exceptions. When a person will go up stream at this time, they must give as a present a pig or if they cannot get a pig, the chief of the Segahs takes all their possessions which he holds until a pig is presented.

Bajan -	Bride's father -	Si Umer.
	Best man	- Si Daiik.
	Dowery	- Dalaham.

The bride's mother sets a price on her daughter's head called

by Malays onkos depur bajans dalahann. After the ceremony, the man stays with his wife & mother-in-law for a time & then starts house keeping for himself.

For three days previous to the ceremony are festivities and the night following the ceremony. The morning of the wedding day the man was escorted with music, fire works, etc. from the house of his bride-to-be to the house of his father & his friends carrying in escort boxes filled with things for him to wear. The same afternoon he was borne back with great excitement, fireworks (merchoen), flags & many friends & relatives in escort, all gaudily dressed.

Monday, October 7, 1912.
Blatok, Birang R.
Cl.

My men have just come back from Tandjong Redeb & I am getting ready to go further to interior & stay with the Dyaks (Basaps) for three days; developed some plates this A.M.; will leave to-morrow morning at 3:00, taking 3 men with me & leaving Mohamid to look after the Sepit & camp.

Sunday, October 13, 1912.
Birang River.
Hazy.

After finishing making 3 plandok skins we broke camp & headed for Tandjong Redeb, rowing & drifting. Reach Mr. Tengard's roemah at about 4:00 P.M., talk to his wife & wait there until midnight when the tide turned & we could come to Tandjong Redeb where we reached about 3:00 A.M.

Sunday, October 27, 1912.

Segah R., near Tong Mindjau.
Rain.

Anchored in midstream (Adou, Pabis, & Mohammed), collect on the South side of the river & in the afternoon skin specimens, finish about 8:00 P.M. & with Adou & Mohamid go up the river in canoe with a jacklamp, get close to a crocodile in the water & I shot at its head; it lunged frantically about, hitting the boat and wetting us; it disappeared & then when I swung the lamp around, found the brute within a yard of me. As I had nothing but a shot gun, we went on up the river.

Monday, October 28, 1912.

Segah R. near Tong Mindjau.
Rain & Cloudy.

Collect birds & squirrels on south bank of river & go further up stream.

This morning I came upon honeycomb in the jungle at the base of a tall tree 3 feet in diameter. I found that a bear had climbed the tree for about 50 feet & ripped open the side to get at honey-inside. Bark, vines, etc. were scattered about the base of the tree.

Sunday, November 10, 1912.

Tong Mindjau, Segah R., Borneo.
All A.M. Rain.

It rained so hard all the morning that I could do nothing but stay in the boat & try & keep things dry. About noon it cleared & I took Pabis & hunted along through the jungle near Tong Mindjau for about three miles. I saw lots of birds high up in tall trees but not a great many within gunshot. I also saw another squirrel which I took to be S. parus. In places, the

ground is yellow clay & the forest composed of large trees with little or no underbrush; the ground clean. Make up skins after dark.

Thursday, November 14, 1912.
Tong Mindjau, Segah R., Borneo.

Am weak from dysentery but hunted from shortly after sunrise until about 2:00 P.M.; had Mohamid with me; lost our bearings & were a long time before we could get our old trail which was flooded as the Segah is overflowing its banks. Luckily we reached Tong Mindjau with the Sepit before this freshet. The mouth of Tong Mindjau makes a good harbor; great masses of logs, stumps, etc. have been going down stream all day. Everything is moldy & wet from the continual showers & flies & bees thicker than ever.

Wednesday, December 4, 1912.
Segah R. above Moeara Birang.
C.

Arose at daybreak; heavy mist on the river; hauled up the anchor & drifted down the river to Dato Melano's place. I went ashore & shot some fruit bats & dato gave me the horns of a lembu and three deer which he had gotten up the Birang.

Monday, December 23, 1912.
Toembit, Kalei R.
C.

Make up some bird skins of specimens I got yesterday. About 8:00 P.M., as it was fine moonlight, I decided to hunt, & with Si Bait went to an open jungle about 3/4 of a mile from the village & squat; we heard two or three mouse deer & pigs; one of the latter I shot.

Tuesday, December 24, 1912.
Toembit, Kalei R., Borneo.
C.

Arise 5:30 & with Si Bait go inland; get the pig I shot last night. The Dyaks helped skin it & they quickly disposed of the meat. It was slow work thinning down the skin with no sciving knife.

About sunset, I went inland with Si Lois to wait at a mud-hole for lembu but after waiting for 4 hours & not getting anything but bites from mosquitos and ants, we returned to the kampong.

Wednesday, December 25, 1912.
Kalei R.
Cl.

Arose at daybreak at Toembit & about 7:00 A.M. started down the river stopping at the house of La Wing & going through the jungle to the house of bini Si Long Bii where I waited for my boys & took a few pictures, one of a pretty Dyak girl named Si Song.

Paddled down the river but slowly as we were towing bamboo for masts & booms for the sejit; stopped on a sandy bank to eat & then continued by moonlight, reaching the Tandjong about 3:30 A.M.

Saturday, January 4, 1913.
Tandjong Redeb.

Leave Tandjong Redeb at dusk in Sepit with Ambang, Adow & Enok, starting down the river.

Sunday, March 9, 1913.
Samarinda.

Arise at W. Olmeyer's about 6:30, continue writing letters and then pack my trunk to be left with Olmeyer. Arrange with him about the shipment of my boxes and go on board the Chinese steamer from Singapore for a few minutes. The Chief Engineer was a friend of Olmeyer's and gave me a couple of London weeklies. Tambie had things all ready when I reached the prahn so we set sail about 10:00 A.M. Olmeyer says he will be at Telok Seliman in about three weeks & will help me get specimens if I come in there. Sailing down the river all day, tacking most of the time as the wind was northeast & east. It rained two or three times during the day. Go to bed about 9:00 P.M.; anchored near Sanga Sanga.

Monday, March 10, 1913.
Mahakkam R.

During the night Tambie, Boega and Kendung had gotten the prahn further down the river but in the rain & darkness have come into a different mouth of the river to the one which we used going up. I awoke at daylight and we sailed straight out to sea, being just able to lay our course. I spent most of the day shifting things here and there and packing things away in order to save space and keep things from rolling around. The wind was strong from the north and after going about two or three miles off shore made a tack but she would not point up enough to clear the furthest point but when the sun went down the wind shifted a little and we sailed until about 3:00 A.M. and then anchored near the Santan River.

March 9, 1913.

Tuesday, March 11, 1913.

We had not slept more than an hour when the wind swung around to the west and we again started northward along the coast and when daylight came could see the islands of the Boutang group. All last night and now the Chinese boy (Ah Sing) that I got at Samarinda is very sea-sick and can do nothing but lay in the bottom of the boat. Except Boega who was sailing, all hands slept from about 7 to 11 A.M. Near Pulo Barat Basa a very large turtle came up within ten feet of us but Kendund was slow in getting the serapang (fish spear). About 11:30 we dropped anchor at Salintukan, the Bajau kampong of two houses set out in the water, where I left my canoe on the way to Samarinda. The tide was falling when we came in and we were just in time to see the Bajaus at work catching fish. They had a "garing" siene across the mouth of a little bay at the edge of the reef, the bay being formed by the falling tide and at low tide would be dry. There were canoes and sampans lined up near the net and about twenty Bajaus including boys not over twelve years of age. They all had fish spears, some of them had two, and they were running here & there, spearing fish on all sides, the water about up to their knees. It's a wonder they don't often spear each other for several times I saw them after the same fish, one in front and one behind or else one on either side of it.

When they had finished, we got some fish from them, and it seems to me the first meal the men here have enjoyed since they last had fresh fish two weeks ago, for up the river they could get no good fish. The remainder of the day I spent getting things stowed away in good shape. Go to bed about 9:00 P.M.; clear.

Wednesday, March 12, 1913.
"Salintukan."

To-day I hunted to the south of here but this is the most barren place I have yet visited in Borneo. The land having been cleared at some previous time and being sandy with no brook nearby is, I suppose, the reason for the lack of vegetation; there is very little grass and the trees or bushes are low, none over 20 ft. in height and have small leaves resembling those of the huckleberry.

A Bajan^u and two boys, also Bajaks^u, accompanied me but I got nothing but four small birds. I saw the tracks of pigs but nothing else. It was dusk when I got back to the prah^u.

These natives are the most unsatisfactory ones to do anything with that I have ever heard of. Kendung, who came with me when I was last here went off the prah^u after we arrived here yesterday and I have not seen him since; now Boega tells me that Kendung has quit; two days ago he said he wanted to go with me until we reached Pulo Kanoengan. This just shows how unreliable they are.

Thursday, March 13, 1913.
Salintukan.

When I awoke this morning I found the wind was from the west and thought we would be able to leave this miserable place, but within a few minutes it began to rain and continued practically all day. When it did let up, the wind again swung around to the northward.

Friday, March 14, 1913.
Near Bontang.

This morning it stopped raining about 8:30 and with a very light westerly breeze we left Salintukan, much to my delight and

to the disgust of Tambie who is as sulky as a captive bear. Boega has brought his son, a boy of about 12 years, with him. After a few hours sailing the wind died out and we had more rain, some of which I used to develop a dozen plates. When I finished washing these plates, I put them in alcohol for about ten minutes and found that upon taking them out they dried very rapidly and the film seems very hard and clean and entirely free from dust; being a good ways from shore and the prahn^u being very still, is likely the reason for it.

About 4:00 o'clock I went off to a sand bar where I could hear some curlew but they all left as I approached. Later I got two large plover and some small ones & two turn-stones; some of the small plover were destroyed by fishes which attacked them before they had been in the water two minutes.

We are anchored in deep water between two coral reefs to the north of the islands and well off shore.

Saturday, March 15, & 16, 1913.

Has been clear all day and very hot this morning; the wind was mostly northwest but the latter part of the day it has been about northeast and we could not clear Tg. Sangata so have anchored to the south of it. We heard a deer call and about 11 P.M. when the wind had died down, Tambie & I went ashore with the lamp. I took the shotgun as there were no mountains about & I thought there would be no signs of "lembu". We had not more than gotten on shore when I saw tracks of a lembu whose feet were the size of a truck horse's. There was a large clearing which extended along the shore. Within a few minutes, a deer cleared but we did not

see it; however I saw the eyes of one some distance away so I took the lamp from Tambie and walked up until I could see its body. There was another one but it was back in the jungle. I fired at the nearest one and it came with a rush straight at us until about four yards distant where it dropped. We then walked north along the sandy beach & saw lots of tracks of deer, pigs & buffalo, but only got a plandok and a musung. The musung was at the edge of the water when first I saw it but it climbed up a tree at the edge of the jungle from where it was shot; we saw several plandok.

March 16th - I had to wait about an hour for the tide to rise as the sampan was high & dry. We put up sail immediately and started straight off shore. Skinned the deer on the stern of the boat and this was not easy as the boat was continually rolling. Boega had over a fish line and got a bite; he waited with the spear & Tambie pulled in on the line but could not draw the line in; it suddenly came up easy and we were surprised to get a half of a fish which had been about 30 inches long. It was easy to see that this fish had got the hook and then been grabbed by a larger fish which the men said was a shark. We sailed all day and until after midnight; when we were within about a mile of the shore the mast broke and was a nuisance to repair. We were anchored north of Boengaloen River.

Monday, March 17, 1913.

Hoist sail at daybreak; we had dragged anchor during the hours we slept. This has been another of those very hot days unbearable in the sun during the middle of the day, but nice always in the shade of the sail or below.

The Chinaman has been half seasick for the last four or five days and does nothing but lay about as if in a stupor. I shall be glad when I can get ashore and give him something to do. We were becalmed a good part of the day and about 2:00 P.M. I had a good bath in the sampan but had to keep close to the prahn^u for the sun was unmerciful.

We were about eight miles from shore when a breeze finally came and it was from the northeast or just enough east so that we could not make Pulo Miang; when we got closer to shore the wind shifted two or three times and we finally anchored near Gunong Sekaret about 2:00 A.M.

Tuesday, March 18, 1913.
Near Mount Sekaret.

There was no wind when I awoke so I took the gun and went ashore in the "jonkong", canoe, with Boega and walked westward along the beautiful sandy beach until we reached a small stream where there was fine cold fresh water, the first I have tasted since Samarinda. The jungle along the shore is typically tropical, there being several varieties of palms including four or five coconut trees and also rotans which make the jungle anything but a good hunting ground.

There came a slight head wind so we all went ashore again after "makan" and bathed in the stream and opened a few young coconuts and I tried to go up the stream in a canoe but it was only ten feet wide and clogged with fallen trees.

At night I went ashore and hunted along the beach for about two miles to the eastward where there was a tiny brook. When looking

about this brook I saw the deserted "lapax^u" or hut of a native and approached it to within a few feet when by good luck I caught sight of a "bulatic" or spring spear set by the owner of the place right where anyone who approached would be sure to be struck.

I got back on the prahn about 1:00 A.M. with a mouse deer. I heard two or three pigs but did not catch sight of them.

Wednesday, March 19, 1913.

The mouth of Sangkoelirang Bay.

This wind was about northwest this morning and it did not take us long to reach Sangkoelirang. I wanted to go to Pulo Rinding and meet Hadji Madin Schariff Nilo Perbongse^a, but although the wind shifted back and forth several times we were unable to lay a course to that island so gave up the idea and proceeded east nearly to Tanjong Batoe Pagar where we were becalmed and anchored to await the wind. There were two heavy squalls during the day which gave us a good shaking up.

Thursday, March 20, 1913.

Tanjong Batoe Pagar to Mancoembar R.

We got a breeze this morning about 3:30 which lasted until daylight when we were again becalmed and anchored at the edge of a reef. Tambie and Boega took their fish spears and the two small boats and went after fish; while they were gone Ah Sing cooked the rice. They were not away long for the breeze came from the west. They got some fish, enough for a good meal. We went slowly along nearly a mile to the east of Mancoembar where there was a clearing; we thought we could get some vegetables here so I went ashore with Tambie and Boega but could get nothing, except a bunch of bananas. These

natives (Bugis) are planting coconuts and I believe have chosen a good spot as all along here for about five miles the coast is very sandy and level though in the background are mountains and hills.

Just as we got back to the prahn it began to rain and rained hard the remainder of the day.

Friday, March 21, 1913.

From Manoembar to Tanjong Tokong Tokong.

I was up several times during the night and had to move about as we struck bottom when the tide was low. It was still raining when we arose this morning but calm; we set sail but made little headway. Finally Boega's boy said there was a big crocodile away ahead of us, but a look with the binoculars showed it to be a big pig. I jumped for the rifle and Tambie, Boega, the kid, & I got in the sampan and overtook the brute which was about half a mile from the shore; I shot it and we hurried back to the prahn.

We poled, etc. until late in the afternoon when the rain let up and we got a good westerly breeze which brought us to Tanjong Tokong & to a good harbor behind a little rocky island. About 8:00 P.M., I went with Tambie & Boega in the canoe with the light & hunted along the edge of the shore but there was a drizzling rain and we got nothing but a couple of fish which Tambie speared. Upon our return to the prahn, Tambie got two of his seine nets and we caught over 150 fine fish, some of which I used as specimens. I guess it was about midnight when I retired.

Saturday, March 22, 1913.

Tokong Tokong.

There was a drizzling rain when I awoke this morning but it

finally cleared and Ah Sing and I skinned the pig on the beach of Pulo Tokong Tokong. This was the easiest pig I have had to handle as it was entirely free of fat. Ah Sing seems to work well and it certainly seems good not to have to clean skulls myself. I pickled some more small fish and a snake which I caught on the edge of the island.

Just about dusk, I went ashore and hunted in a patch of jungle between two rocky limestone ridges; got only a common squirrel. After going back into the jungle for about 300 yards, I came upon a beautiful little lake which, however, I was disappointed to find was salty and had an opening into the sea through some rocks. After dark, Tambie, Boega & I paddled along the edge of the rocks with the reflector lamp, hunting for fish, and after having gotten a few, we came upon a sea snake laying on the bottom, so returned to the prahn and I got some rattan and made a snare at the end of a fish spear and thus caught one snake but a smaller one than at first seen.

Fish of many kinds are abundant here and all along the coast the large turtles are continually coming to the surface to breathe and make a splash if they find themselves near the boat. I was much surprised at the great speed of the turtles as they swim when alarmed.

Sunday, March 23, 1913.
Tokong Tokong.

At daybreak, I hunted along in the valley and up the sides of the mountains straight back from the point. I got a fine *Sciurus atricapillus* which differs a great deal from those of the same species collected in Berace; the vittatus squirrels here are also

different from those I have collected elsewhere. This morning I missed when I had a fine chance to shoot a squirrel with an enormous tail.

Monday, March 24, 1913.^L
Tokong Tokong & to Laboean Bini.

Before sunrise I was in the jungle this morning and started a long climb up the mountain near Sungai Perak, following the trail of some Basaps who had been cutting rotan and who had built their lapans^u at the mouth of the stream. I am sorry they have left as they are of a Pampong which has not been visited by europeans and by only a few Malays. The jungle here is ideal and I could hear argus pheasants on all sides but they are too wary to show themselves. A Dyak told me that he had never seen the argus pheasant while hunting but had caught many in "jerats" (snares).

I was almost at the top of a mountain when I came upon a band of *Pygathrix rubicunda*^u, and after following them for some distance, I got three fine specimens, also some squirrels and a bird.

About 4:00 P.M., we left Tokong Tokong and sailed along the shore to Laboean Bini, the harbor protected by a mangrove covered reef.

Tambie paddled me along the edge of the Mangroves & I shot a couple of proboscis monkeys as a band of them entered the mangroves from the higher trees but did not get a shot.

When we reached Laboean Bini, I went ashore to look at the deserted godong & lapans^u (shelters) of Basaps & Malays who had formerly been gathering rattan here. Tambie called me, saying, "There is a dead child here; perhaps you want its bones." When

I found it had been properly buried and a fence built about the grave, I told him I would not open it. It must be a very small infant, not over two feet long, and the parents may come back.

Tuesday, March 25, 1913.

"Taboean Bini"

Before the tide had entirely ebbed this morning I went up the brook, a beautiful arched path through the mangroves and then reached the fresh water which always has a welcome look. The stream was made impassible by fallen trees so I hunted along the banks for a mile or so, crossing back & forth to which ever side seemed to have the most open jungle but I had to cut my way most of the time for there ^{were many} ~~was much~~ vines, rattans, thorns, etc.

Return to the prahn about 11:30 A.M. & had just finished rice when Boega said there was a big white pig on the reef to the east. I went after it with the rifle but had to go through the mangroves where there was about a foot of mud which was anything but easy walking. After half an hour I suddenly came upon a big boar among the mangroves; I fired & it dropped but in a moment began struggling but I supposed it nearly dead as I could see lots of blood on its back; however, it crawled into a little stream and disappeared, and though I trailed it for over half a mile was unable to find it when it had gotten up stream.

I was in the mud between the mangroves & the jungle when I came upon the head of an enormous crocodile, the largest which I have ever seen; although there are no teeth and the bone is broken, I think it may be of some use to show the size.

Wednesday, March 26, 1913.

"Taboean Bini".

There were a few moments of west or northwest wind this morning which we used to get to the eastward about a mile. While the others sailed, Tambie and I went in the canoe along the edge of the mangroves but did not get much. I shot two wattled starling, the first I have collected, although I have often heard them calling and whistling and seen them caged by natives, principally the Dyaks; I have seen comparatively few in the jungle.

These tall trees with the heavy roots that grow in the water, seem to be the favorite haunts of woodpeckers, fish hawks, kingfishers, and starling. These trees are called "perapat"; many times bands of proboscis monkeys are found among them. Late in the afternoon I went hunting along the mangroves and tried to get through to the jungle beyond, but it is almost impossible.

Thursday, March 27, 1913.

"Sandaren Baagoe".

Often times there seems to be a few minutes of land breeze just at dawn of which we can make use. This morning while the prahn was being sailed and afterwards poled along, I, in the canoe, got a good specimen of "Bekanton" or proboscis monkey. This sort of collecting disgusts me; I continually hunt for an opening through the mangroves to the jungle beyond but there always seems to be a wide strip of the mangroves. I have tried getting under the roots at low tide but the mud up to my knees, sticky & heavy, prevents anything in the way of going a distance.

We anchored just off the mouth of Sandaren Baagoe. It was high tide and although there was a roll from the heavy east winds,

we have been having, it was not too uncomfortable in the prahn to work; therefore I sent Tambie & Boega for water while Ah Sing & I worked on the specimens. However, as soon as the tide began to fall, the prahn swung side to the sea & rolled so that in half an hour Ah Sing was sea-sick and of no use. As the tide continued falling, the rolling increased until the water was too shallow for the waves to have any effect. When the tide rose again & it had stopped raining, we got the prahn into the mouth of the river where all was as quiet as could be.

About 8:00 P.M., I heard a deer call, so told Boega to get ready the jack lamp and we would walk along the shore to the east and try and get a shot at something; if not a deer, possibly a pig or musung or something else. The tide was still well up so we had lots of log jumping but got a mouse deer and a small green snake with long fangs which struck at the light as I approached. After two hours we returned and crossed the stream and went to the westward; we had to keep in the water in order to walk as here there was very little sandy space. Just as I came out of the water, I saw the eye of an animal about 70 yards ahead; it was a crocodile on the edge of the shore & did not even struggle when I shot; we dragged it above high water mark and continued entering the jungle; a few yards further on I came face to face with a pig. I waited until it turned its head to one side & then shot it in the shoulder. It fell over like a log. It was a fully adult female. From the pig we turned to go back to the river through the jungle and had gone but a few steps when I shot a plandok and about ten minutes more, I got a shot at a big doe which also dropped in its tracks.

As a matter of habit when I am near the water I am continually

on the watch for the eyes of crocodiles which with a reflector lamp look like red fire. Just as I was boarding the prahn I caught sight of one up stream a few yards. Tambie got his fish harpoon and we paddled to within ten feet of the brute when just as it went to draw down into the water, Tambie speared its neck. There was a swirl of water and a splash or two and we began to be towed up stream. The line to which the dart was fastened was heavy fish cord but very strong. After being towed about 500 yards, we began to drift down again and finally to come down stream quickly and then upon reaching the place from where we had started, the animal suddenly bit the cord and we lost the dart of the spear and 15 yards of line.

With another spear we paddled up stream for about a mile where we came upon a crocodile at the edge of the water. From the way the eye looked I had taken it to be a small one until within 15 feet I saw its body. I whispered to the men to "undor" (paddle) backwards but the animal heard me speak & turned around, but just as it did so I shot it in the neck and it floundered & splashed at a great rate. We harpooned it and towed it down stream. It is a narrow snouted one & good for its skeleton.

Friday, March 28, 1913.
"Sandaren Baagoe".

It stopped raining about 8:00 A.M. & we went after the deer and brought it to the edge of the river where I started the Bajans^u to skin it while Ah Sing & I went after the pig. The pig had been destroyed during the night by others of its own kind. The only hunting to-day was after a pig that came out on the shore to the east but did not get it. Go to bed about nine o'clock.

Saturday, March 29, 1913.
"Sandaren Baagoe"

It rained from about midnight and continued about half the morning, a regular downpour. The Chinaman and I started work on the crocodile before it stopped. Skeletonizing a crocodile is slow work and we did not finish until about five o'clock. The rain up stream has caused the river to rise so that it has cut away the sand bank at its mouth several feet in a very short time, but at the same time it brought down thoroughly fresh water which I bathed in, notwithstanding its muddy appearance.

As soon as I had finished makan I lay down for about three hours and then took the gun (12 ga.) & with Tambie hunted to the west of the river until midnight & shot a fine big porcupine, two mouse deer and a crocodile which had its mouth open ready to grab a big boar which was feeding among the nepas nearby at the edge of the jungle. I also saw a musung but it disappeared before I could raise the gun.

Sunday, March 30, 1913.
Sandaren Baagoe to Sandaren Tengah.

As there was a slight favorable breeze at daybreak we left Sandaren Baagoe; I went to look at the crocodile I shot last night but it is smaller than the ones which I have, so I will not take its skeleton.

I made up the skin of the porcupine & put the plandok skins in the tank.

About noon we were becalmed and the boat rolled with the swell from the east which made it a miserable place to do anything. The sun seems to shine perfectly strait down and makes the boat so hot the boards of the deck burn my feet.

I do not feel well and think my blood in a bad condition for sores are continually breaking out on my arms and legs & will not seem to heal.

Late in the afternoon the men poled along the shore, reaching near Sandaren Tengah but there was no harbor and we were continually rolling.

Monday, March 31, 1913.
Near Labuan Pandjang.

Between sailing and poling we nearly reached "Laiou".

About ten o'clock, my attention was called to a roost of "Caboge" so I went in the canoe among the mangroves & other trees to have a look at these Bats or flying foxes. Just as I came to where they were roosting, there was a band of proboscis monkeys that were making a great disturbance among them, for what purpose I could not find out. I collected ten of these bats and made a couple of exposures of them at roost. One of the pictures ought to be very good.

Tuesday, April 1, 1913.
"Labuan Penang".

This morning it delighted me to feel a good breeze from behind and we made use of every minute of it and reached here about ten o'clock, the wind having died when we came around the lighthouse at Tanjong Mangkalihat and shifted to the north so we could not clear the next point so we came into Labuan Penang, no more than dropped anchor when the wind again shifted to southeast which lasted for about fifteen minutes we had just gotten nicely started. This weather here is as uncertain as the natives.

At Labuan Penang are what might be called two harbors, but neither of them good if the wind is strong from the eastward. We are in the smaller one to the northward. All along this shore for several miles is a fine sandy beach but much of it cannot be seen from the sea as the sandy beach is at the edge of the high land and between it and the sea are mangroves and "perapat" and in the background mountains. At the water's edge near the southern harbor are the sheds, etc. of traders that send rattan, rubber, etc. to Samarinda which Malays as well as Dyaks here are continually hunting.

It has been one of the hottest days I have ever known. I had thought my feet tough enough to stand but I could not stand in any one spot on deck where the steady rays of the sun had shone. We got ashore early in the afternoon ^{and} I had a most enjoyable bath in a muddy pool beneath some big trees not far from the shore.

About 8:00 P.M., I started with the lamp and hunted up along the shore for about two miles & then inland to the deserted clearing of some Basaps, Dyaks. Tambie & two natives from here accompanied me. I shot three mouse deer, a musung and a big boar.

Wednesday, April 2, 1913.

Labuan Penang to near Landas.

Ah Sing and I had been working on the specimens for some time when there came a good breeze and we set sail, hoping it would last long enough for us to reach Telok Selmau; it however calmed when we were near Landas, off a rocky coast with no harbor near in case of a gale.

Thursday, April 3, 1913.
Pulo Kanioengan Ketchil.

I was awakened about 4:00 A.M. by the flapping of rigging; as there had sprung up a heavy wind from the north, we could just lay our course for Kanioengan and would have reached there in an hour and a half had not the wind changed so that we ended up at Pulo Kanioengan Ketchil where I collected eight small herons and then late in the afternoon headed for Seliman^a, reaching there about 7:00 P.M.

Friday, April 4, 1913.
Telok Seliman^u.

Arise early and go in the canoe to the upper end of the bay to see Mr. Olmeyer of Samarinda who, natives told me, was there with about 30 coolies. When I reached the upper end of the bay I met a Hollander who told me Mr. Olmeyer had left about 15 days ago for Berace. These people are going to lumber this section, which contains much fine hard wood. It is, I believe an American company. Returning from the upper end of the bay we came along slowly & near the bank but got only two curlew. As soon as I reached the prahn, Tambie went ashore to get some vegetables and Boega went to Kamioengan to get his wife.

Last night Ah Sing disabled himself by upsetting a pot of boiling water which scalded and blistered his leg from hip to toes; I dressed it, but he will be unable to do anything for several days. It rained and blew hard from about noon until just after dark.

Boega returned with his wife whom he will take to Samuntai. Seliman should make a fine collecting ground and I will stop

here or at Laboean Klamboe on my return. I would like to stop now but am afraid that if I wait, the south monsoon will set in & I shall have much trouble in returning from the islands.

Saturday, April 5, 1913.
Seliman to Samoentai.

They awakened me long before daybreak and said the wind was favorable; I helped raise the sail and then went back to sleep and when I awoke we were drifting along about two miles off shore but had come a good ways from Seliman; after some time we got a northwest breeze that took us in the direction of Pulo Balik Koekoep but early in the afternoon shifted to northeast and we could lay a course to Samoentai, arriving here shortly after dark.

When we were passing the island of Mamimbora this afternoon, I asked Tambie if the coconuts on the island were good and the trees fruitful. He told me the trees were fruitful enough but the natives were afraid to cultivate them as the island was used as a burying ground by all the natives in the neighborhood and had been for a great number of years, so that at the present time, when they take a body there to be buried, they usually uncover two or three skeletons while digging a grave. He seemed quite positive that these dead men walked about at night, for his friends had seen them, and that they were capable of attacking people with a kriss & mandow. Tambie's mind is troubled over the subject as he says he does not quite understand how his ancestors could be both here and at Mecca. The Hajies or Mohammadans that have been to Mecca have told him that his mother and father were there; they were not visible to the eye but their voices could be heard. Tambie therefore wants to go to Mecca to hear the voice of his dead mother & father which he half doubts he

will hear, for "How can a dead man travel that distance?" and then too, it is a question how all these dead men can be alive for there certainly is not enough room in the world for both the living and all who have died.

Tambie, however, is a Solok from the Philippines and has piratical tendencies. His father & mother were killed by the Spaniards in the Philippines. He once told me that several years ago the head of his kampong "Pungawa Beri" was attacked at Tangone Boeaja Boeaja by the Controller of Berace for having taken possession of the sister of Dato Sibi who is a District officer. Tambie claimed the Bajans were afraid to go & attack the Controller in the kapal prang or warship but waited in their houses. About 4:00 A.M. the Controleur's men began firing and Tambie's Pungawa ordered them to burn the kampong & run. Tambie gave a very vivid description of breaking open cans of kerosene and soaking cloth in the oil and then spreading it about the house, bullets flying all the while and in the midst of it, one of his friends was hit in the stomach & died, but he and his Pungawa had gotten away in a small boat & gone to Kampong Bharn^u, Celebes where he had lived quietly for a year and then returned here & thus eluded punishment. He thinks it was very ill omened that the whole kampong did not burn, but claims it was just before daybreak and there was absolutely no wind.

Sunday, April 6, 1913.
Samoentai.

This morning, early, before the tide had fallen, I had the prahn poled behind the houses and was high & dry at noon when Boega and Tambie scrubbed her bottom which was covered with green moss which in this climate rapidly accumulates. It is customary to

burn the bottom of a prahn with coconut leaves about once a month in order to keep worms from entering the wood, but here there are no coconuts, so I will burn it at Derawan or Pulo Pandjang.

There are lots of trees about here but no land within sight except at low tide when the reefs are all bare and look like a desert with here & there a native hunting for fish or anything else that the tide might have left. At dusk, I went in the canoe and shot some curlew which had come in the bay to roost and earlier in the day got a great Blue Heron. The wind has been due north.

Monday, April 7, 1913.
Samcentai.

The wind is north and northwest, which is the most unfavorable way in which it could blow.

Many Bajans have come on board to-day and asked for medicine, etc. There are more of them sick in this kampong than anywhere I have been; the majority of the sick are children who have various kinds of skin diseases, cuts, boils, bumps, swollen legs, sore eyes and fever. One child not more than 18 months old was brought to me to be examined. It looked rather sleepy but otherwise not unhealthy. Its body felt very hot, so I put the thermometer under its arm and held it close to its body and was surprised to see its temperature was 104.02° . I told the mother the child was much sicker than she supposed & she must be very careful of it and give it the medicine and watch carefully its food. She did not seem alarmed or worried about it, however.

Most of the day has been very hot, but later there was lots of thunder and some rain.

Tuesday, April 8, 1913.
Samoentai.

When the tide began to flood, I called a couple of natives to go and get water for me and I went with them. We paddled up to the head of the bay and then in a small stream where at the beginning, the canoe had to be dragged over the broken rock to where the water was a little deeper & they could pole along through the mangroves to where the salt water did not reach and the stream was as clear as crystal. Here they filled the "puncarans" (large water jars) & I had a good bath & then hunted for small birds, etc. and visited the head of the Kampong whose house was here and had out of courtesy to look over a lot of sick children and women. Return to the prahn^u just at dark. I do not seem to be able to get any natives; although they seem to want work they seem afraid of me because I am a european. The way the wind is now I cannot sail anyhow, so I will wait until the wind is favorable and then demand two or three of them to take me to Derawan.

Wednesday, April 9, 1913.
Samoentai.

Ah Sing's leg is still in bad condition from the burn he got at Seliman, and although he cooks and moves about a little, he is in pain and cannot do any work.

When I had finished preparing the specimens of yesterday, I called some Bajans^u and I again went to the head of the bay and with the head of the kampong and six other natives hunted through the jungle for two or three miles to the clearings of some Dyaks. Their paddy is just about ready to be gathered and is very fine. Upon returning, I got a fine specimen of Arctictis binturong and got back to the prahn after dark. Ah Sing had makan ready but he is

a miserable cook.

Thursday, April 10, 1913.
Samoentai.

It took me some time to dress Ah Sing's wound and then I prepared the *Arctictis* which I got last night, taking both skin and skeleton.

I do not know how much longer I have got to wait here before I can get men.

Friday, April 11, 1913.
Samoentai.

This afternoon I went along in the canoe up the stream and hunted with Mah Si Lida and some other natives of his kampong but got only a few small birds; game is very scarce, although the forest is of big trees and should have lots of game. The Dyaks however may use this as a hunting ground.

Saturday, April 12, 1913.
Samoentai.

As a matter of habit, I gave medicine to some sick natives and then dressed Ah Sing's leg and gave him medicine besides, as he has fever, and after skinning the birds of yesterday, I again poled up to the kampong at the head of the bay and shot three more tufted martins. They seem to be quite common here although not many were flying about to-night.

Sunday, April 13, 1913.
Samoentai.

There were about a dozen or more girls, women and their babies as well as their husbands that came aboard this morning to watch me work and who wanted to see photographs. I like to have

them come aboard but have to be very watchful as stealing is no vice to them.

At last I have gotten two Badjans^u and hope they will prove better than they look, Benche and Sadah. With them I went to the kampong up stream and bought some ubi kay^u, and taboe and looked at a couple of natives that were sick and hunted without success, although at dusk I saw many flocks of "pergum" and "putean" flying from the forest to the mangroves but they fly very high, higher than the tallest trees.

Monday, April 14, 1913.
Samoentai.

I skeletonized the martin I got last night and as the tide was low I could do nothing but wrap some skeletons and stow them away. The men got a good lot of wood, possibly enough to last a month. Sadah took Ah Sing in the canoe to the head of the stream where he could bathe his burnt leg. I think it will soon be well, although it is now absolutely raw from top to bottom.

About nine o'clock, I took Benche and went to the kampong up stream where I met Mah Si Lida and hunted for about three hours in the clearings and the jungle & got two mouse deer and an owl and returned to the boat about one o'clock^{A.M.} just in time to cover up things before it rained very hard.

Tuesday, April 15, 1913.
Samoentai to Tanjong Proepoek.

At sunrise I awoke and half an hour later we left the harbor with a light breeze from astern and sailed straight off shore for about three miles and then the wind shifted to the eastward and we had a squall with wind and rain, so anchored off the edge of a

reef until after noon when we could again sail with a good breeze; we sailed at night and at dawn anchored off Tanjong Proepoek.

Wednesday, April 16, 1913.
Tanjong Proepoek.

We lay about two and one half miles from shore all day as the wind was dead ahead. It rained part of the time. The only thing I could do was make a thorough house cleaning and show my new Bajans how to clean dishes, pots, etc., as they have never before worked for a european or chinaman, and therefore do not know how to do anything in the way of keeping things clean or in order.

About 8:00 P.M., we got a change of wind to the westward and set sail straight to the northward.

Thursday, April 17, 1913.

We had a calm of about two hours shortly after midnight and anchored, and then got a good breeze and sailed until 8:00 A.M. There is a strong current here and we do not make nearly the distance we should. From here we can barely see land. We were anchored all day as the little wind there ^{was} dead ahead and also there was lots of rain. I wish we could get near the islands to get some fish or turtle eggs, for since leaving Samoentai we have had only dried fish and that is nearly finished. Shortly after dark we got a slight breeze but it lasted only a few minutes and then we anchored again.

Friday, April 18, 1913.
Near Samama.

I had been sleeping outside but came below about 5:00 A.M.

on account of rain which continued until about 9:00 or 10:00 o'clock; when we set sail, laying a course that would bring us a little to the southward of Pulo Sangalaki. The wind was mostly from the north but at dusk shifted to northeast and we shifted our course to to W.N.W. and later to N.N.W. which brought us to the edge of the reef of Samama. Here we ran on a rock and when we got off, anchored for the remainder of the night.

Saturday, April 19, 1913.

Nearer Samama to the southwest.

I am entirely at a loss to know what to do to get along faster.

This morning we got a slight breeze and started sailing immediately but the current is so strong, we made but little headway, and after two hours or so got clear of the reef, to the west of it, and then came a squall with a gale of wind and hard rain. We anchored near the edge of the reef but the anchor would not hold, but by good luck we managed to scrape over the rocks and into a sort of hole which protected us from the sea. After the squall there was a dead calm and we could do nothing until the tide again rose when we poled over the reef to a better harbor just at dusk.

It is a beautiful night but of no use.

Sunday, April 20, 1913 - Full moon.

Pulo Samama.

Between sailing in the rain and finally poling in the rain we covered about a mile, finishing by anchoring to the north of the island. There are some Bajans here, fishing, and seem to be having pretty good luck. I went in the canoe with Benche to the centre of the island, for this island is an atoll, I believe. The shores

are sandy and the whole place is overgrown with trees, vines, etc., much mangrove and "parapat". At high water, there was about four feet of water in about the centre of the island but everywhere are trees and vines, making the place most beautiful. I could easily imagine myself in some far inland jungle lake not near salt water. The entire scene changes within one hundred feet.

A blue and white kingfisher and two species of sun birds are the commonest birds on the island but great numbers of frigate birds come to roost, and from the Bajans I learned that white pigeons as well as the large maave breasted ones sometimes come here, though I saw none. Two or three little blue herons flew in from one of the other islands about dusk.

The moon was about two hours up when there came a northeast breeze and I thought we could reach Derawan and the tide was not yet low, so we started heading westward until we had cleared all the reefs and then turned northwestward; the current was very strong but we did however make headway. After midnight, I slept for about an hour or so & when I awoke, found we were headed back for Samama with west wind behind us and a storm coming rapidly from the north. We reached back to the same place we had started from.

Monday, April 21, 1913.
Pulo Samama.

Notwithstanding having had no sleep last night, Ah Sing and I started straight to preparing the specimens of yesterday and the Bajans slept a couple of hours and then took their spears & went after fish, returning in about two hours and one half with over forty fish.

The wind was blowing hard this afternoon when I paddled ashore in the canoe, hunted among the trees in the island for some time with no success but upon returning to the boat shot three frigate birds as they flew overhead.

To-night there is lots of rain about and blowing and cloudy and no chance of sailing.

Tuesday, April 22, 1913.
Pulo Samama & to Pulo Derawan.

I started Ah Sing to skinning the birds and then went ashore with my two Bajans, they to make a rudder for the canoe & I to hunt. I returned to the boat about 3:00 P.M., had had nothing to eat all day and the lazy beggars had not cooked anything but eaten cold rice left from yesterday.

The tide was high just at dark and we set sail straight for Derawan as the wind was northeast; if the tide had not been at its highest we would surely have had trouble. The current was against the wind and thus helped to keep us in a straight line and we reached Derawan in three hours.

I went ashore and talked to Si Chin, but he is a chinaman who has been on this island for over twenty years and did not know much european news; in fact, none.

This is the largest kampong of "orong laut" Bajans & Soloks along the coast and I like to see them for they are certainly interesting.

Wednesday, April 23, 1913.
Pulo Derawan.

This morning I went ashore & met Pungawa Tabor & looked over the kampong with him and had a talk with Si Leong, a chinaman who has been here practically all his life, has a Bajan wife and about

ten children.

Later I engaged three new men, Soloks, and have made Nia their mandor and told him if this prahn was not in order I hold him responsible. Bajans are afraid of Soloks and especially of Nia, so I released the two Bajans and they will go ashore here.

I have been to-night to the beginning of the festival of a Bajan marriage in a large thatched house next door to Si Chins. I was delighted to hear the music and see the dances and all the costumes and decorations of the house which are really fine and the dances most interesting and I was amazed at the talent shown and the great variety of colors, patterns, etc. of the clothes worn by the natives. Most of the dancing was done by the men although as a rule they divide it, but as it happens now, a great many of the women are now out on the reefs hunting teripang and fish. There were probably about 75 natives in the house and I believe I have never been in a congregation which wore such a variety of knives, daggers, etc. Large elliptical bladed Solok knives or swords called "badong" and many varieties of Bugis "keris" and "bujak" or spears, both short & long and "sumpitan" (blowpipe).

Thursday, April 24, 1913.
Pulo Derawan.

The beating of the "tambut", a native drum and "kulintangan", a series of small gongs and a very large gong or "agong" has only been interrupted at short intervals and then continued and often accompanied by singing. Again to-night I went to their festival and with Pungawa witnessed much dancing called "ber-egal" and returned to the prahn after midnight.

Friday, April 25, 1913.
Pulo Derawan.

With Pungawa and about a dozen or more kids I hunted all over the island for small birds and also got a couple of bats, one of which is new to me, a long nosed one with very light buffy coloring.

Spent the afternoon preparing these specimens while Ah Sing was ashore washing clothes. He is the only one I dare trust to watch the prahn when I am not here for the natives have, almost without an exception got long hands.

Again to-night I went to the dancing which was livelier than before, more dancers, more girls, more costumes, and best of all an old Bajan whom Pungawa called for my especial pleasure. This old man played a violin "biola" made by himself and was accompanied by the kulintangan and two or three Solöks beating the cane floor mats with short sticks which made good time. The old man at times accompanied his playing by singing and at times by facial expressions. All their music is fast time and lively. I had an intention of staying until their festivities were over but about two o'clock, I got sleepy and returned to the prahn, but they continued all night.

Saturday, April 26, 1913.
Pulo Derawan.

I let Kim Si anak Si Leong take the shot gun and the auxiliary and he got some sun birds. I made a dozen and a half exposures today of the marriage celebrations, etc. but the best part of it took place after five o'clock this afternoon and perhaps my negatives will be under-exposed. During the forenoon I made an exposure of the bridgroom as he was escorted to his home from the house of the bride-to-be. This afternoon I made several exposures as he was

escorted with the greatest elegance back to the house of the bride-to-be. The coming of the bridegroom was a great occasion and nearly everyone in the kampong took part in it. A white cloth was laid for the bridegroom to walk on as he approached the bride's house; he was carried on the shoulders of his friends and both his and their dress was most gaudy, completely covered with spangles, etc. For buttons on the front of his coat he wore fifteen American five dollar gold pieces which had come from Pulo Solok, one of the Philippines. This evening I went to Pungawa's house and he told me all about his family and the names of his children and grandchildren of which there are many.

Sunday, April 27, 1913.
Pulo Derawan.

This weather is beastly; more than two-thirds of the time it is raining and specimens will not dry well.

After finishing work on the prahn I went to the Pasang Graham and developed three dozen plates and the majority of them are very good.

I was surprised to learn that within a few minutes after I left Pungawa's house last night a Bajan was speared in the dark by an unseen enemy & the fellow that was speared grabbed the spear but his opponent escaped without being identified.

This evening I intended going to sleep early but heard some music & singing so went ashore to see what was going on; I did not stay long as only a couple of natives were singing and playing the bamboo kulintangan and the rest of the population all gambling, two or three women included.

Talk to Mahammah who has just returned from the islands after

having collected turtles' eggs.

Monday, April 28, 1913.
Pulo Derawan.

First thing this morning I hunted some oars and poles and then got to work skinning birds.

Him Si and Mohammedarip took the shot gun and got some more sunbirds and a couple of big bats and I gave them some more rat traps in hopes of getting a few more.

Has been rainy and cloudy all day.

Tuesday, April 29, 1913.
Pulo Derawan to Pulo Pandjang.

I partly prepared some specimens & then went ashore & paid my bills and we started for Pulo Pandjang. The wind was from the southward when we started but shifted to eastward and we reached our destination in about two hours.

At Pulo Pandjang I met Mr. Schmidts, who with his partner, Mr. De Thorey, has cleared the island and planted coconuts which are very fine and healthy. They have about 20,000 coconut trees now and will probably plant about 10,000 more in the lower portions of the island as soon as it can be drained.

I once met Mr. De Thorey in Berace but he is now also in Berace. Mr. Schmidts invited me up to his temporary bungalow and I walked with him to the south end of the island. In the evening I enjoyed a civilized meal & conversation with him and slept in his house.

Wednesday, April 30, 1913.
Pulo Pandjang.

I did not put out any traps as Mr. Schmidts has a great

number of them and pays his coolies for all the rats they catch. This morning they brought me eleven, but they were not all good, some having been eaten by ants.

Thursday, May 1, 1913.
Pulo Pandjang.

This morning I got some small birds but there is not much place to hunt them.

This evening, Mr. De Thorey returned from Berace and with him a little Dutchman, a diver, who intends to do some diving for pearls.

Mr. De Thorey told me the President of Mexico has been killed and that the U.S.A. has sent troops there to prevent a revolution.

Friday, May 2, 1913.
Pulo Pandjang.

Collect a few more small birds on the south end of the island.

In the afternoon I went to Derawan with Mr. De Thorey and Van Engers (?) in Mr. De Thorey's launch. It seemed good to go at a speed of 7 miles an hour but the noise of the motor makes my ears ring.

I dined again with these gentlemen and came aboard the prahn about 10:00 o'clock.

Saturday, May 3, 1913.
Pulo Pandjang and to Pulo Raboe Raboe..

When the tide rose this afternoon I left Pulo Pandjang with a light breeze from astern, and an hour and forty-five minutes later, reached Pulo Raboe Raboe which is closer to the mainland than any of the other islands. We anchored within a few yards of the house of an old Bajan & were near the island, to the south of it. The reefs run far out on all sides of the island so we were high and

dry at low tide. This island has also been cleared and planted with coconuts and there now only remains a fringe of trees around the edge, mostly mangrove and "parapat."

Sunday, May 4, 1913.
Pulo Raboe Raboe.

From before daybreak there was a gale of wind and heavy rain which lasted until 10:00 A.M., when I went ashore with Baliong and hunted all around and across the island and got some birds. The blue and white kingfishers are very common here and are the first birds to be heard in the morning and the last to go to roost at night.

To-night I have a little fever and feel miserable.

Monday, May 5, 1913.
Pulo Raboe Raboe.

I felt weak to-day and did not go ashore; however, we got some rats.

Tuesday, May 6, 1913.
Pulo Raboe Raboe.

I got a dozen more rats to-day and a pup belonging to the people who own the island. I was surprised that the Schuyler rat trap was strong enough to kill the dog.

This evening, or late this afternoon, I went ashore & spent a couple of hours hunting, but only got four small birds.

Wednesday, May 7, 1913.
Pulo Raboe Raboe to Derawan.

Before sunrise we set sail from Pulo Raboe Raboe, intending to go to Sanga Laki, but the wind shifted & we came ashore on Derawan. I shot four flying-foxes and with several natives and two or three Chinese boys I managed to catch some small lizards.

I wandered about the kampong talking to Bajans, Soloks, & Chinese. Late in the afternoon, Baliona came up & said that he and Nia could not agree so I had to hunt for another man & got a relation of Nia, named Ampong. Return to the prau at dusk.

Thursday, May 8, 1913.
Derawan to Moeara Tua.

We were anchored to the east of Derawan and left there about seven o'clock this morning. It had rained nearly all night and had not yet stopped. The wind was southwest but we tried to reach Sanga Laki, but the wind shifted to the southward and we came here to Moeara Tua.

Off the southeast corner of the island we anchored for a couple of hours to await the tide and to cook; one of the men got a couple of "Kima", a very large millusk with a scalloped shell. When the tide rose, we crossed the reef and came into the cove.

Moeara Tua is an island shaped something like a hook and composed of limestone rock which is evidently very old as the stone everywhere is full of holes like a sponge and there is no earth on the surface, but there are many trees; (in fact, the island is well forested) their roots wending their way among the rock in a most curious fashion. For the most part, the rock is bare or covered with a thin coating of moss, and of course in some crevices there are massed leaves, sticks, etc. in process of decay. The rock is everywhere sharp and almost impossible for the natives to walk on as it cuts & sticks into their feet. Even with my heavy shoes I had great difficulty, and two or three times cut my hand, when, stepping on an unsafe rock, I tried to balance myself with my hand. After dark we sailed to the head of the cove.

Saturday, May 10, 1913.
Muara Tua, Cove.

As soon as the sun had risen, I started for a clearing on the southwest side of the cove. The place had not been inhabited for about three years and of course was all overgrown. The men however, found some peppers, "Kaladi", "Terong", "Sare", & a bunch of green bananas & the bud of the banana. The clearing was less than 100 yards long and about half that wide with rocks all through it.

I left the men to set the traps while I climbed over rocks and hunted for birds, but although I heard many parrots and pigeons, I only saw one pigeon & that not to shoot at.

The whole place is nothing but a degenerating mass of limestone caves. The rock is everywhere sponge-like in form and there are many small holes, hardly caves, which should be fine places for bats, but I saw none except a couple that were flying about.

We returned to the prahn just at noon, and after preparing the specimens, I started out again for "Pulo Semut", one of the small islands in the cove which is rocky in the centre but is encircled by a sandy beach. The island is not more than 100 meters in diameter but a beautiful island with two or three varieties of palms, including half a dozen coconut trees.

I shot a couple of fruit pigeons & saw a green monkey which has a short tail which had probably been cut by natives. There are four or five graves on the island of Bajans that died of cholera several years ago.

Sunday, May 11, 1913.
Muara Tua, Cove.

The stars had not yet disappeared when I awoke & sent Maade and Ampong to collect the traps from the clearing on the southwest

side of the cove. They returned with seven large rats, one, however, only fit for the skeleton, having been destroyed by ants. I labeled the rats and then again visited Pulo Semut and the small island to the east of it, Pulo Alanga, where I hunted several hours. Pulo Alanga is probably 225 yards long and more than half that wide, and is covered with trees, and has a sandy beach on the east and north side; also there are mangroves where the beach is sandy. On the south end of the island, which is somewhat higher, there are partly broken down caves, but I saw no bats except one "Pteropus" which was clinging to the branches of a sapling. I shot some small birds and a bird called by the natives "tambun" which is, I think, related closely to the moa.

The weather has been fine and clear with fine nights, and there is beginning to be a little moonlight.

Monday, May 12, 1913.
Muara Tua, Cove.

Nia, Maade and Capping collected the traps at daybreak and got thirteen rats, but some of them had been destroyed by ants. After measuring them, I went in the canoe to the other islands & hunted until noon.

While I was preparing skins, Maade was fishing from the cabin top and caught thirty small fish that did for a fine meal.

A couple of natives in a small prahn came in the cove this morning, probably to hunt rotans on Muara Tua.

At high water, we poled to the east, near the small island.

Tuesday, May 13, 1913.
Muara Tua, Cove.

It was just getting daylight when we poled to within about a hundred yards of Pulo Sangalan and anchored in a slew-way between Sangalan & Indungabu. As soon as we anchored I went ashore and hunted for a long time, until midday, and then returned to the prahn; we had some rain, but beneath the big palms, a sort of pandams, I kept dry. On the island there are lots of small lizards, but look the same as those on Derawan. This island is mostly rocky and the little lizards find fine hiding places among the rocks which are filled with holes. On the northeast end of the island are three or four graves which appear very old.

About the middle of the afternoon I went ashore on the other side of the slew-way and hunted for a couple of hours and got a beautiful little red breasted sunbird.

Wednesday, May 14, 1913.
Muara Tua, Cove.

I hunted on three small islands this morning but got nothing but small birds and a parrot. The islands are named Tong Tutup, Kali-hilang, and Insa Kukup; all are more or less rocky with a portion of their beach sandy. Lizards are the most common animals on these islands with the exception of ants, of three or four varieties.

Thursday, May 15, 1913.
Muara Tua, Cove.

At daybreak it was raining and cloudy in every direction when we went for the traps and got fourteen rats, all of which I could use for specimens. At high tide the men poled the prahn further to the south and anchored in about 10 feet of water at the edge of

the reef.

This afternoon I went on the island Lusa Kukup and hunted until dusk, but got only a few small birds. The blue and white kingfisher is common on all these islands, also the little white heron, and usually a pair of great blue herons can be heard or seen. Possibly fruit pigeons (punai) come to all these small islands, but I think they are not common, as I have only seen five or six.

Friday, May 16, 1913.

Muara Tua, Cove to Bakungan.

At high tide we crossed the cove to the south east point and a rocky jagged point it is. At low tide I went ashore and hunted about the point; I saw a munyit but not within gunshot.

I missed a fine parrot and got only two small birds.

I intended to go to a clearing on the southwest side of the island but the wind continued from the west, so we came to Bakungan, reaching here about sundown, just in time to put out some traps.

Mr. De Thorey has made a godong here for his dried fish and there is also another thatch house and several Bajan prahns, but no constant inhabitants, as there is no fresh water, Muara Tua being the nearest place to get water if there is no rain.

Saturday, May 17, 1913.

Pulo Bakungan.

With two natives I went ashore, which on the west side is sandy and has a sandy reef running off its shore for more than half a mile, but on the east side there is nothing but bare rock below high water mark and very sharp jagged rock, covered with scraggly vines and trees, above the water mark.

Early in the afternoon I returned to the prahn and was hot, hungry and tired. Mia had cooked rice and "kima", and as there was plenty of chabby, I had a good meal and spent the afternoon preparing specimens.

Sunday, May 18, 1913.
Pulo Bakungan.

I expected to get a lot of rats this morning but only got 10, and out of the ten, eight that I could use for specimens, and two of these had their skins spoiled.

The tide was nearly low when I started for the north island which is about 500 yards from Bakungan, but at low tide the sandy reef between the two islands is bare and the glare from the white sand was about all my eyes could stand. This island is practically all limestone of the sharpest, jaggedest kind, full of holes and crevices, reminding me of a sponge. About eleven o'clock the sky clouded up and an hour later we were drenched, but the tin box I had brought kept my birds and cartridges dry. Almost immediately after the rain, the sun came out and was very hot.

I expected to start with the high tide for Muara Tua, but another squall shifted the wind.

Monday, May 19, 1913.
Between Bakungan & Muara Tua.

It was yet moonlight when we set sail, but the wind was very light and by noon we had gotten only half way to Muara Tua, and when the tide ebbed, we anchored, so that we were just afloat at lowtide. As I had no specimens to care for, I stirred things up and got practically all the inside of the prahn good & clean and incidently found where the leaks, that have been giving us much trouble, were located.

Afterwards Ampong went hunting on the edge of the reef, returning when the tide rose. He got several blow fish and teripang; the fish were very good.

With the rising tide came a breeze and we reached Muara Tua just at dark and had to close up things hurriedly as a very black squall was approaching.

Tuesday, May 20, 1913.

Pulo Muara Tua. (Paiung²)

I shot a heron from the boat as we poled along the shore this morning and then got in the canoe and went into Telok Pier and went ashore and hunted on the north shore and got some small birds and returned to the prahn about noon; went ashore again about 4:00 P.M. with a couple of natives (Bajans) - (Anak Si Arip & Adang) and got two parrots and some smaller birds. Ama Si Adang has made clear all the ground that can be used for growing coconuts and has somewhat over 700 trees, all of which are from 18 months to two years old and the finest I have seen excepting at Pulo Pandjang.

Wednesday, May 21, 1913.

Pulo Muara Tua (Paiung²)

I finished preparing specimens about 2:00 P.M. and went and had a bath of good fresh water which felt fine after so long with nothing but sea water excepting when it rained.

I shot several swifts this afternoon and four monkeys. I was accompanied by several Bajan boys who are always anxious to see me shoot, and scramble for the empty cartridges.

Thursday, May 22, 1913.

Pulo Muara Tua (Paiung²)

Have not been out of the prahn all day. The men got a dozen

rats from the traps and with them, the monkeys, and the birds, I had a full day.

Friday, May 23, 1913.

Pulo Muara Tua. (Paiung²)

It has been raining by spells practically all day. I had a couple of birds and seventeen rats and when they were finished, I went on shore and shot some swifts.

We intended to set sail for Sanga Laki to-night, but it got black and is now blowing a gale & raining.

Saturday, May 24, 1913.

Pulo Muara Tua. (Paiung² to Kubun Si Leong.)

This morning we poled along the edge, hardly shore, of the island for about two or three miles to the clearing of Si Leong.

The wind was so that we could not sail. I hunted about the clearing which is composed of all the good land that there is, a strip from two to three hundred meters in width and more than a mile in length. It reaches from the water's edge to the edge of the rock of which the island is formed. The soil is mixed sand and black earth. Si Leong has planted about five or six thousand coconut trees, most of which are about a year old and healthy in appearance. There is also corn, taboo, kaladi, ubi blahan, gadung, chabby and buah labu.

There are three or four families of Banjar people and a couple of Bajan families. The Banjerese are working for Si Leong and the Bajans working one end of the clearing for themselves. I bought some vegetables from the Bajans and later the Banjar people came to the prahn and begged for salt, matches and tobacco in exchange for vegetables.

At dusk I again hunted for bats but could not see to shoot and only got two leaf nosed bats which I think are very common here.

Sunday, May 25, 1913.

Pulo Muara Tua to Pulo Sanga Laki.

It was yet dark when we set sail and had a good breeze for about an hour, but then it became lighter and we were carried by the current to within half a mile of Pulo Kakaban before getting more breeze. We reached Sanga Taki about 4:00 P.M. I went ashore to hunt and sent the men back to get the rat traps.

Sanga Laki is a sandy island nearly round and about half a mile in diameter and has a beautiful sandy beach and also a reef which surrounds the island so that the boat has a safe resting place although afloat only at high water.

I have a cold in my head and feel miserable. The underbrush on the island is infested with "red bugs" (tung-ou) and even a salt water bath only partially relieved the itching.

Monday, May 26, 1913.

Pulo Sanga Laki.

Late last night I went ashore and found a couple of turtles that had come ashore to lay their eggs. One of these turtles I turned on its back so that it could not get away and this morning made some exposures of it.

Maade and Ampong left for Derawan to come back to-morrow.

At dusk I hunted and got a couple of birds while Ah Sing and Nia were setting the traps. But these mites, red bugs, are terrible and generally invisible. I saw a couple of Pteropus but did not get a shot at them. I also saw a parrot which looked the same as the ones from Muara Tua.

Tuesday, May 27th, 1913.
Pulo Sanga Laki.

The sun came up fine and clear but within half an hour later it was raining. We got 12 rats; 2 were destroyed by crabs. Here the crabs are as destructive to specimens as the ants; sometimes more so, for they even destroy the skeleton and in several instances have stolen the traps.

This afternoon I went ashore about 3:00 P.M. and hunted until dark, but got but a single kingfisher.

Wednesday, May 28, 1913.
Pulo Sanga Laki.

Nine rats this morning, and the skins of four of them were destroyed by ants and crabs. This is my third day here and I have seen but two small birds, one of which is new to me. When I went to the traps this morning I saw a very small quail (?) black, with reddish tarsus & feet; at first I took it to be a young "Tambm" but it ran and flew like an adult bird.

The prahn did not rest easy, so Nia brought it to the north side of the island where the reef is a bit wider. Among and Maade returned from Derawan this afternoon.

I was a good part of the day hunting but with little success. There are many pigeons, both "pergum or boud" and "petehan" here but they seem to stay in the tops of the highest trees and thus, as a rule, out of shot gun range.

Thursday, May 29, 1913.
Pulo Sanga Laki.

At dawn the men filled all the water jars and as soon as the tide rose enough to float our prahn, we started for Pulo Balembangan. We had showers three or four times during the day and at

dark we were out of sight of land, and as there was practically no wind, we rolled the sail & took down the mast, trusting the current to carry us near one of the islands by morning.

I have gotten poisoned from something similar to ivy and the combined itching of it and the mites and a cold in my head makes me feel very miserable.

Friday, May 30, 1913.
Pulo Bilang Bilangan.

I was awakened about three or four o'clock this morning as the sail was hoisted. The last quarter of the moon gave a little light and with the glasses I could see two islands which proved to be Mataha and Bilang Bilangan.

We reached Bilang Bilangan just at sunrise and anchored on the southeast side of the island within thirty yards of shore so that the prahn had to be propped up at low tide.

This island is very valuable as more turtle eggs are gathered here than on any other two islands along the coast. I learned from natives that formerly all the islands belonged to the Bajans and now have been taken over by the Dutch Government. A Chinaman at Derawan rents the islands from the government and relets them to the natives, Bajans & Soloks; for this island the Chinaman gets from 8 to 15 guilders a night, depending upon the season.

During the north monsoon there are fewer turtles lay their eggs here but during the south monsoon there are from sixty to one hundred a night and each turtle lays from 100 to 175 eggs.

The natives always come three at a time & have the island for 10 or 15 nights. At present three Soloks have the island and have had fairly good luck. This morning they collected nearly four

thousand eggs. When their boat is full of eggs they sail to one of the following places: Samarinda, Tandjong Redeb, Tandjong Seilor, Toli Toli, Dongala, Kampong Bharn, or Makeasser. A good load of eggs is about 100,000 and they bring from five to ten guilders a thousand; places nearby such as Tandjong Redeb and Kampong Bharn, they are cheaper, as these places can be reached ordinarily within four or five days.

The island has never been cleared and is covered with open forest, except the northeast end which runs to a narrow point; here there are only a few small trees and both these trees and the ground are over-run with vines of two or three varieties; one is a morning-glory, which looks the same as the ones at home. Most of the large trees are of the variety known to the natives as "nunuk" and bear a fruit which is orange in color and about the size of a small marble. A great number of birds as well as other animals are very fond of this fruit; probably the pigeons here eat nothing else.

I had finished hunting for birds and just about to go aboard the prahn at dark when a Pteropus bat lit in a tree at the water's edge. I got this and one other, the only ones I saw. The natives say that at times there are many of these bats, when the moon is full. These bats and rats are the only mammals on the island. (There are also three domestic cats.)

Saturday, May 31, 1913.
Pulo Bilang Bilangan.

I have not been off the prahn as I had my hands full with the specimens; many of the birds were badly shot and it takes much time to clean them.

Sunday, June 1, 1913.
Pulo Bilang Bilangan.

Early this morning I walked around the island and across it from end to end. Monitor lizards are common but the majority of them are small.

Monday, June 2, 1913.
Pulo Bilang Bilangan.

One of the Soloks on the island said he knew how to shoot so I let him take the gun and while I was working other specimens he got me more pigeons.

Tuesday, June 3, 1913.
Pulo Bilang Bilangan.

One of my natives turned over a turtle last night so I made some exposures of it and of the native gathering eggs.

Wednesday, June 4, 1913.
Pulo Bilang Bilangan & Pulo Mataha.

As I got twenty rats from the traps this morning I did not hunt for birds. This morning was rainy but cleared about noon and got very hot. When the tide rose the wind shifted from southwest to east and we reached Pulo Mataha in about an hour. While we were sailing I skinned the lizard which I caught two days ago by putting a trap in a hole in the sand, baited with turtle egg.

Thursday, June 5, 1913.
Pulo Mataha.

There is not much on this island for me and I think that if the wind is favorable I will, to-morrow, set sail for either Balimlangan or Balik Kukup. More than half the rats I got last night have their tails partially lost; at Bilang Bilangan many

of the rats were diseased and had sores on all parts of their bodies as well as having their tails broken or bitten off. (My natives claim that the land crabs bite off the rats' tails.)

Friday, June 6, 1913.
Pulo Mataha.

As I could get no specimens to keep me busy, and it being a very hot clear day, I dried many specimens and packed them into the boxes.

At low tide I tried to spear some fish but got nothing, though one of the natives went off to the edge of the reef and when the tide began to rise returned with several fish.

I had intended sailing this A.M. but there has not been the slightest breeze.

Saturday, June 7, 1913.
Pulo Mataha to Daeng Alahan.

When we left Mataha at daybreak, there was a strong wind from the N.E. and looked stormy in every direction. Balik Kukup lies due west of Mataha, but of course, too far to see, but we expected to reach it by noon. When we had covered about half the distance, the wind died and as there is a strong current, we drifted back to within sight of the sandy beach of Mataha, then got a S. to S.W. breeze and reached the south edge of Daeng Alahan, a reef.

At dusk came a little breeze and we got a little further to the westward and are now anchored in about a fathom of water and will be aground at low tide.

Sunday, June 8, 1913.
Daeng Alahan to Pulo Balik Kukup.

No wind early this morning, but about nine o'clock we got a

breeze and got within two or three miles of our destination, when the wind died, and we anchored in about 30 fathoms of water. Take some skins out of pickle and wash & scive them.

Early in the afternoon came a light easterly breeze and we reached Balik Kukup shortly before sundown, in good time to set the traps.

The island is all cleared and planted with coconuts, there being only two or three big trees other than coconuts. The island has no true harbor close by but the natives have their houses on the north side and keep their prahns there, but at low tide there is no water at all for about two hundred yards from shore, and to the east the sandy reef runs along ways.

Monday, June 9, 1913.
Pulo Balik Kukup.

I was very much surprised to find the rats on this island so different from those of the other islands. This species is probably closely related to *Epimys ephippium*. The old Bajan, Ama Si Paula, who owns most of the trees here and has lived here for about twenty years told me that formerly there were large rats here but that they had long since been exterminated by his cats, thus the only mammals of the island are the small rats and the small *Pteropus*; the latter are common and destroy many coconuts.

Tuesday, June 10, 1913.
Pulo Balok Kukup.

When I had finished making up skins I went and shot more bats and three birds. Birds cannot be considered common here. There are some kingfishers, small herons and I saw two small birds about the size of caterpillar shrikes, but did not get a shot at them, and I got a swift which probably was only a visitor.

This evening I went to the house of old Emam and talked with him and his family. This P.M. I took a picture of his daughter, Si Muki and her five months old child.

Wednesday, June 11, 1913.

Balik Kukup, Manimbora and Eraban.

I got a few more rats this morning. There was no favorable breeze until about three o'clock this afternoon. Just before leaving, I went ashore and had a good bath for I certainly dislike these islands that have no fresh water. We reached Manimbora in about an hour and a half, and after examining this little island, decided there was nothing to collect, so set sail for Pulo Eraban. Manimbora is an island about two hundred and fifty yards long and entirely planted with coconuts which are about twenty years old but have practically no fruit, probably because until now there has been no one to care for the trees and stay on the island.

We came to anchor within half a mile of Eraban about 8:30 P.M.

Thursday, June 12, 1913.

Pulo Eraban.

This island, as it is called, forms the southeast end of Tandjong Buaja Buaja. The latter, however, is an island of mangroves, but Eraban is composed of sandy soil and is planted with coconuts, most of which are bearing and look fine & healthy. The kampong consists of five houses belonging to as many families, the owners of the coconuts. The natives are Bajans and Bugis.

I shot some small fruit bats and some bright coloured birds this morning among the coconuts and along the edge of the mangroves that surround them. Small birds are common, especially sunbirds. The kingfisher of the island is also common here, though I got none.

Storks and herons are also said to be very common.

The mammals of the island are rats, *Nasalis larvatus*, *Pithecus* (common), *Pteropus* & *Cynopterus*.

Friday, June 13, 1913.

Pulo Eraban & Kalindakin.

When I had finished preparing the rats and got something to eat, I went ashore and again hunted among the coconuts, followed about by half a dozen or more natives who were always anxious to see me shoot.

About 4:00 P.M. I left Eraban and about an hour later reached Kalindakin, where I had heard that lembu were very common. Two natives from Eraban and Tambie Lawang and a companion followed me here; as they knew the ground, I told them that if they came and hunted with me to-night I would surely give them the meat of a deer or a lembu. Thus with four natives I hunted from shortly after dark until after midnight and killed two buck deer and a pig but saw no lembu which I am very anxious to get. Here there are possibly 1,000 coconut trees from four to six years old and would be bearing if they were not constantly ravaged by monkeys and squirrels. The former owner of the coconuts half finished a house at the edge of the sea but now he occupies a grave within a few yards of it.

Saturday, June 14, 1913.

Kalindakin & Tg. Buaja Buaja.

My natives have been quarreling and ready to fight with their knives, so as such doings interfere with the work, I have decided to go to Tg. Buaja Buaja and release Maade and Ampong. To-day I have been getting the skins from the two deer which I shot last night. I have seen but very slight traces of lembu, though many natives have

told me this was the place to find them. I returned to the prahn about 3:30 P.M. and made up some birds left over from yesterday. After taking what little meat I wanted from the specimens of last night, I gave the carcasses to natives and they divided the meat and took it to their respective Kampongs, Eraban & Tg. Buaja².

Sunday, June 15, 1913.

Kalindakin & Tandjong Buaja Buaja.

It was about 6:30 this morning when we left Kalindakin and sailed near Pulo Manimbora but had to wait two or three hours for the tide and finally reached Tg. Buaja about 4:00 P.M.; after arranging about my natives, I learned that there were two or three white people in the kampong, so I went and called on them. I met two fellows, geologists for the Nederlandsche Koloniale Petroleum My. which I believe is really a branch of the Standard Oil Co. They are prospecting for oil and will be going all along the coast. I dined with these fellows and talked to them as well as I could. One of the fellows, a German, Dr. Hartmann, has only been here in the east for a month and cannot speak Malay or English but by mixing Dutch, German, and English with Malay, we managed to understand each other.

Monday, June 16, 1913.

Tg. Buaja Buaja.

Dr. Hartmann came aboard my prahn this morning and I showed him my specimens and he seemed interested in them. The natives I had engaged did not show up and there seems to be none here that I can get, but a native coming from Samoentai says Tambie and Kabong will surely be here to-morrow morning.

Tuesday, June 17, 1913.

Tg. Buaja Buaja.

Another day gone and no specimens and no natives. The only thing accomplished was to take some specimens out of alcohol and solder them up in tins.

Wednesday, June 18, 1913.

Tg. Buaja Buaja.

As I had sent Nia several times to hunt for men and got no definite results, I went again to the chief and after talking for an hour or so, finally persuaded two Bajans to come with me, though they would not promise to stay longer than about two weeks.

About 4:00 P.M. I went with Dato Siebi and Dato Hadji Kuning, Boega and two other Bajans to a sand bar about a mile or so from the kampong and shot some shore birds, godwits, plover, turnstone and sandpipers. There were probably 2,000 birds in all and most of them godwit and curlew, some long-billed curlew.

Thursday, June 19, 1913.

Tg. Buaja Buaja, nearly to Tangkapaan.

Shortly after sunrise, Kamohong and Jahaber came aboard and we set sail for Telok Klamboe. We had to sail to the northward and then turn and go southeast along the coast. There was quite a gathering of Bajans at Manimbora when we passed there. They were having a picnic and in that way making medicine for the child of their chief.

The wind shifted from one direction to another but at no time during the day was any strong breeze, and just at sundown we anchored about a mile and a half off shore from Tangkapaan. This is a fine moonlight night.

Friday, June 20, 1913.
Labuan Klambu.

We set sail before sunrise and about nine A.M. reached the mouth of Labuan Klambu. I shot a couple of tern while we were sailing. Tern of two species seem quite common along the coast here. The tide was falling when we came to the mouth of the cove and the current was very strong and the water almost fresh.

This afternoon I hunted on the S.E. side of the inlet and got a plandok and some small birds and set traps on the north side of the inlet.

After dark to-night I went with the jack-light with three natives in the canoe along the shore to the south for about 2 miles or more and got 2 musung and 2 plandok. I saw deer tracks and a great many pig tracks; pigs are very common here but I have not yet seen any large ones.

Saturday, June 21, 1913.
Labuan Klambu.

We are now anchored just outside the inlet but perhaps tomorrow we will go inside where the water is cold and fresh and as clear as a crystal.

This afternoon I went to the pool at the head of the bay or lake; this pool is the most beautiful spot I have ever seen; it is possibly 100 yards in diameter, the water absolutely clear and about forty feet deep in the centre. After leaving the pool I went to the end of arm of the lake that extends southward and hunted until nearly sunset; got a fine specimen of *Sciurus parvus* and *Pygathrix rubicunda*.

Sunday, June 22, 1913.
Labuan Klambu.

After going over the traps I returned to the prahn and although the tide had begun to ebb we pulled, poled and rowed the prahn until we reached the centre of the pool at the head of the lake where I washed all the skins which I had in pickle.

With the two boys I paddled to the inlet and baited all the traps and got back just at dusk and managed to shoot three little bats while it was yet light enough to see.

Monday, June 23, 1913.
Tabuan Klambu.

Hunt to the north of the inlet and in the middle of the afternoon climb up over the sharp rocks at the head of the pool for about half a mile and get a fine specimen of *Mustela*. None of my natives had seen this animal and perhaps it has no name here.

Here there are no real hills and valleys but everywhere scooped out holes and sharp rocky mounds, all heavily forested, though there is very little earth except in the holes.

Tuesday, June 24, 1913.
Labuan Klambu.

When I got back to the prahn this morning after going to the traps we brought the prahn to her former harbor at the entrance of the lake.

As I was in a hurry to look over the traps I did not take the gun along and thus missed a chance to get a beautiful argus pheasant. The sun had not yet risen and it was not very light beneath the trees. I was just about at the end of the line of traps and going along quietly when about thirty feet before me I saw this argus pheasant

which evidently did not see me and walked slowly along for several yards before disappearing behind some rocks and brush.

Late this afternoon I hunted along the edge of the shore for about a mile and got four vittatus squirrels.

With Si Nia, Lantong and Kamahong, I went along the shore to-night and got two Tragulus napu and a musung (Paradoxurus); get back to the prahn about 11:00 P.M.

Wednesday, June 25, 1913.
Labuan Klambu, also Seliman.

After preparing a few specimens and doing a little hunting, I got in the canoe with Kamahong & Lantong and after paddling along the shore to the southeast for about five hours we reached Telok Seliman and I met Mr. Edwards and Mr. Greary of the lumber Co. and talked with them and looked over their mill site. They expect the small steamer Mahakkam to-morrow so I will try and get the prahn here so that I can get towed to Sangkoelirang.

After dark I went jacking with Mr. Edwards and Mr. Greary for crocodiles but saw nothing; afterwards I paddled and walked along the shore and finally got back to the prahn about 3:00 A.M., tired and very sleepy.

Thursday, June 26, 1913.
Labuan Klambu.

It was after seven o'clock when I awoke and I hunted to the north of the inlet and got a few birds and saw a Nannosciurus but did not get a shot at it.

Friday, June 27, 1913.
Labuan Klambu.

I started early at the south of the inlet and after hunting for

about two hours came upon some white bellied *Pygathrix* monkeys and got four; as I was alone, I skinned out their bodies where they fell and thus could hang all four from my waist. The middle part of the day I spent preparing specimens and hunted to the north of the inlet late in the afternoon, but got only a vittatus squirrel and a small bird.

Saturday, June 28, 1913.
Labuan Klambu.

At daybreak I went to the north side of the inlet and within a short time got several small birds that came to feed on the white flowers of a tree at the water's edge (a rough barked scraggy tree with small leaves.) Later I followed the path of the oil prospectors, hunting right and left and got more birds, including a pair of large woodpeckers, larger than the American pileated, a trogan and a drongo, also a *Tupaia* and a *Sciurus atricapillus*. After getting inland from two hundred to two hundred and fifty yards, the forest is fine and large and the ground typical of a limestone cavern country, no valleys nor ridges, but everywhere hollows and hummocks; the hummocks are generally rocky on top. In many of the hollows are holes through which the surface water passes to a subteranean stream.

Sunday, June 29, 1913.
Labuan Klambu.

Having seen so many small birds far inland yesterday, I decided to return, but before going inland I hunted near where my traps were and got four squirrels and a couple of birds, took these back to the boat and then hunted inland, at first following the path of the oil prospectors but later leaving it to follow up

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the bark of a Kijang and after being off the trail about an hour, clouds hid the sun and I could not get my bearings so wandered about until about 4:00 P.M. when I could again see the sun, but not being able to find the trail, I started for the shore and finally came out of the jungle just at dark, close to the boat but dead tired as I had had nothing but a cup of tea before starting and only one meal yesterday. I got one immature Pygathrix and a few birds, but saw several small young pigs and had a glimpse of a kijang.

Monday, June 30, 1913.
Labuan Klambu.

I hunted along the edge of the shore at daybreak but got nothing and as it began to rain and looked dark in every direction I returned to the prahn and after preparing some specimens, spent about an hour or more repairing my shoes, the soles of which had come off, and as I had no real strong thread I had to use wire.

With Ah Sing, Kamahong and Lautong, I left the prahn about 3:00 P.M. to go inland. We followed the trail of the oil prospectors nearly to its end and then to the westward, and at dark made a lapan in a rocky hollow. There was no dry wood about so we had no real fire, just a smudge.

Tuesday, July 1, 1913.
Labuan Nambu.

It was very chilly last night and none of us slept much. As soon as it was light enough to see to walk, I hunted for about two hours, trying to find some gibbons which I heard calling but did not catch sight of them and got only one small squirrel (S. parous). I saw many tracks of lembu deer and pigs but did not catch sight of any. It was raining when I returned to the lapan where I had left the natives, so after

eating some cold rice we simply waited until the rain was over, which was about 2:00 P.M., then we started back to the coast, the natives going by the straight trail, but I hunted along slowly until nearly dark before reaching the shore. By twilight I shot a Pteropus bat as it flew across the inlet.

Wednesday, July 2, 1913.
Labuan Klambu.

It was nearly seven o'clock when I left the prahn this morning; I walked along the shore to the mouth of a little stream about a mile to the north of Labuan Klambu and the natives, Kamahong and Tantong brought the canoe and we went up stream a little way, not over quarter of a mile when we found it blocked by fallen logs and mud. I shot four small birds and a young monitor lizard which was up a mangrove tree near the mouth of the stream. From the mouth of the stream I hunted back towards the prahn and got a *S. atricapillus* and more birds and came across a tree bearing a small fruit on which small birds were feeding. I decided to return in the afternoon but was surprised to find they had deserted it, but while hunting further, I got another lizard and an adult female *Galeopithecus* with its young. The young differs very strikingly from the adult, being reddish brown while the adult appears greyish or really greenish. Late in the afternoon I hunted along the shores of the lake and at dusk went to the pool and shot two small bats and saw a fine large short tailed macacus.

Thursday, July 3, 1913.
Labuan Klambu to Tg. Buaya Buaya.

A native from Tandjong Buaya Buaya told me last night that a steamer was coming there within two days so we left Labuan Klambu

long before daylight and reached Manimbora about 10:00 A.M. where we awaited a change of wind and then between sailing and poling, reached our destination at sundown.

Friday, July 4, 1913.
Tandjong Buaya Buaya.

Dato Siebi came aboard this morning and I learned from him that the steamer "Mahakkam" will come here on the sixth, so there is nothing to do but wait. Nia, Mamahong, and Lautong have been busy all day burning this boat and the canoe with coconut leaves. The wind is from the southward and has been blowing a gale all day.

I shot with the rifle four times at a stork but did not get it.

Saturday, July 5, 1913.
Tandjong Buaya Buaya.

As the tide was high just at daybreak, Nia and Lautong poled the prahn back to the harbor of hole at the end of the dock. This afternoon I went to the kampong & talked to Krani, a Chinese trader, for an hour or so. The wind continues to blow a gale from the south.

Sunday, July 6, 1913.
Tandjong Buaya Buaya.

I loaned a native some rat traps and he brought me 16 rats, ten of which I used as specimens. These are typical house rats as there is no land here except at low tide, the houses being built on spiles and the rats here probably come from all along the coast and from the Celebes, in fact, from wherever the natives go to trade, etc.

Monday, July 7, 1913.
Tandjong Buaya Buaya.

Scive some skins that were in pickle and dry small specimens.

The wind continues strong and it is cloudy day and night.

Tuesday, July 8th, 1913.
Tandjong Buaya Buaya.

My left hand is much swollen and very painful; seems to have gotten infected from some small scratch or pin prick. This P.M. I went to the kampong for a while, but the place has a nasty fishy odor as the natives are drying prawns, shrimp.

Wednesday, July 9, 1913.
Tandjong Buaya Buaya.

We have had so much cloudy weather that many of my specimens are slightly mildewed.

Thursday, July 10, 1913.
Tandjong Buaya Buaya.

Last night I decided to wait no longer for the steamer, as a Hollander from Batoe Putih came here and said the coming of the boat was not sure, so this morning I sent Nia & Lautong to Samuntai to hunt for another native, a sailor. About 10:00 A.M., the steamer came, but to Batu Bitih on the other side of the bay. We had a squall just about this time and it blew very hard and as my hand is very painful, I had much trouble in getting up the anchor (which weighs nearly a hundred pounds), as I had to move the prahn on account of rocks.

Friday, July 11, 1913.
Tandjong Buaya Buaya.

With three natives, I went in the canoe across the bay and boarded the steamer and met Dr. Weber, head of the oil prospectors, and he told me that he could not tow my prahn from here to Sangkoe-lirang but from Labuan Penang he could, so I shall start to-morrow

for Labuan Penang if possible. After spending some time in the kampong, I finally got an old Bajan to promise to go with me to Labuan Penang.

About 5:30 P.M., I went to Batoe Putih in the canoe with four natives. We reached Batoe Putih after dark and I was disappointed to find so many people there, as I had understood the place was practically deserted and that animals were plentiful. I hunted along a trail for about two miles and later in overgrown clearings, but secured only two specimens, one a plandok, the other an adult Hemigaklis.

Saturday, July 12, 1913.

Tandjong Buaya Buaya to near Labuan Klambu.

We had a good breeze this morning and sailed out to the northward and went close to Manimbora and just at dark anchored near Labuan Klambu.

Sunday, July 13, 1913.

Labuan Klambu to near Pulo Kanicengan.

Set sail before daylight and got near Kanicengan when the wind died out and we anchored on the edge of the reef; finally the wind sprang up from the south and is now blowing hard. We shifted late this afternoon and got in closer to the island.

Monday, July 14, 1913.

Near Pulo Kanicengan.

I took some skins out of pickle and ~~so~~lved them and washed them in the sea.

The wind has continued very strong from the south ever since it began yesterday about noon.

Tuesday, July 15, 1913.
To Landas.

The wind was still blowing hard this morning but had shifted to southwest, so we could just about lay a course to Tandjong Batoe Berlobang, but when we got in under the lee of the mountain, the wind came in fits and starts, sometimes dead ahead & sometimes astern, so finally we anchored to cook rice and then poled along the shore until late in the afternoon when we reached a place called Landas where there is a small river and a clearing and one native, a Bangerese. I went ashore and bathed and shot a couple of small birds and at dusk shot two large red flying squirrels and at night I hunted along the shore for three or four miles and got a porcupine and a mouse deer.

Wednesday, July 16, 1913.
Landas.

About seven o'clock this morning I started out with a Dyak and hunted for about four hours and got some birds & again this afternoon I went with this Dyak and we hunted until dusk and I shot a couple of squirrels & birds and at night I hunted along the shore until about 2:00 A.M. when I returned to the prahn and as there was practically no wind, we got up anchor and I went to sleep while Lautong and Nia poled the prahn to Labuan Penang.

Thursday, July 17, 1913.
Labuan Penang.

This place is not a very good harbor for a small prahn as there is a continuous roll swinging in. I made up some skins and then slept.

Friday, July 18, 1913.

This morning I talked to an old Arab here and he told me of a very large snake and I went with a Dyak and hunted for it but did

not get a look at it. Later in the day I went with two Dyaks to their kampong, about 4 miles inland, to hunt for wild cattle.

January 28, 1914.
Samarinda to Seboeloe.

Having decided to accompany Mr. Olmeyer on a trip up the Belajan river, I got together what outfit I would need, and taking Ah Sing and Oesar, we left in the Sultan's launch from Mr. Gray's landing.

About three hours steaming brought us to Tanggarung where we stopped for a couple of hours and picked up Radin Bamban Somoro, the Sultan's son, who will accompany us and also some Kenyah Dyaks from up the Belajan. I have my canoe in tow which I will use up the Belajan and we are towing two other larger sampans.

The Radin in typical style has brought along several natives, so the launch is pretty well filled, Olmeyer, Radin or "Eko" and myself occupying the fore part of the launch and the coolies aft. A few miles above Tanggarung we stopped for about an hour to coal and then went on, reaching Seboeboe, a small native Malay kampong, on the north bank of the river; here we spent the night. Eko and Olmeyer went out jacking for deer during the night but got nothing. Olmeyer returned about two o'clock in the morning.

January 29, 1914.
Seboeloe to Kota Bangoen.

At daylight we began steaming along again. Radin and four of his coolies had not returned from hunting in the night so we were watching for them as we went along and asking at nearly every clearing if Eko had been seen, but not meeting him after several hours, we turned back and picked him up at a place we had passed two hours before. It seems he wounded a deer and had spent the morning trying to trace it, thinking he would be back to the river bank when we passed.

When we reached Muara Belajan it was dark but we wanted to get some natives from Kota Bangoen, so left the boats which we were towing at the mouth of the Belajan and we went on to Kota Bangoen, a Malay village stretched out along the south bank of the river; this is a kampong or village nearly five miles in length but the country is all low and a good portion of the time is flooded; close to the river, the banks are higher than inland.

We walked about and visited the two Chinese tokos during the evening and slept on the launch.

January 30, 1914.

Kota Bangoen to Toeana Toeana.

While Olmeyer and our Kenyah friend, Si Taieng, were hunting for a boat, I walked along the river bank for a mile or more, hunting, and shot some small birds and a squirrel.

Starlings were common and also small long-tailed parrots, but the latter difficult to get close to.

I saw two small hawks or falcons which somewhat resemble a duck-hawk and I saw one of them catch a starling. The starling was flying across the river when the larger bird swooped down upon it, striking with its feet and knocking the starling into the water, then again darting down, catching its prey and carrying it away to the top of an old dead tree on the far side of the river. The first time the hawk swooped, its wings made a very loud whirring sound.

We left Kota Bangoen about nine or ten o'clock in the morning just as a drizzling rain began to fall and which continued at intervals all through the day; as we wound our way up the Belajan, I was continually on the watch for crocodiles, but did not see any.

Reach Toeana Toeana after dark and spend the night there, sleeping

in the house of the Kepala kampong.

During the evening, the Kepala kampong told us how the year before ten of his companions had been eaten by a crocodile which would grab the people as they bathed at the edge of the river.

Though we have passed some low isolated hills, most of the country is low, and most of the time it is flooded, either by overflow from the river or by rain water.

January 31, 1914.

Tuana Tua to Kembang Djanggoet.

As we continue up stream, a slight narrowing of the river is about the greatest difference in the character of the landscape.

Kembang Djanggoet was reached late in the afternoon; this is a rather long Malay kampong. We spent the night in the Kepala District's house.

At nearly all the places we have stopped, we have gotten fruit of some variety; here Radin Moesah gave us some fine durians.

At dusk I shot a black monkey (Buis) not far from the Radin's house.

February 1, 1914.

Kambank Djanggoet to Long Bleh.

Start early in the morning and reach Long Bleh just at sundown.

Long Bleh is a very old Diak kampong, but at the present time is a combined Malay and Diak kampong, with the Dyak kampong on one side of the river and the Malays on the other side.

There is a house built of kajangs which serves as a "Pasang Grahah" and from the launch we put our baggage into this house which is owned by the Sultan of Koetie.

The "Petingies" or chiefs of the kampongs came in the evening

and plans were made regarding getting men and boats to take us up stream.

The Dyaks here are of a tribe closely related to the "Segah" Dyaks of Berace and are called "Modung" Dyaks. Both Olmeyer and I were anxious to see them, so we had several of them come here this evening and had a long talk with them.

February 2, 1914.
Long Bleh.

During the night we had a heavy thunder storm and with very much lightning, and as the roof directly over me leaked, I did not get much rest.

The Dyaks which the chiefs had promised us did not turn up this morning as promised, but I was not much surprised, for I rather expected we would have to wait a day or two.

This morning Olmeyer and I, with several natives, as escorts, went across the river and visited the dilapidated and partly deserted "Lamin" or long house of the Dyaks. The Lamin is not long and straight as they usually are, but rather a disjointed affair, composed of several houses connected by a plank walk of iron wood planks propped up from four to eight feet above the ground. The house is a one story house but this one story is the top one and is higher than the average two story American house. From the edge of the river we walked on big logs for about a hundred yards and then on the above mentioned plank walk, finally ascending three long "tangd" or logs with nitches cut in them to act as stairways which brought us to the living quarters which were exceptionally dirty and dark, and only one part was occupied; the deserted part was deserted because the floor had given away. (We were in constant fear of falling

through the floor in all parts.) I saw a few nice baskets, but the owners would not part with them for twice their worth as they were in almost daily use, but I did get from a Dyak woman a pipe which is very finely carved. We stayed in the Lamin talking to the Dyaks for about two hours and then ate some "lancots", a small sweet fruit.

During the afternoon we had a look at the Malay kampong and also the house of some Dyaks which, on account of the condition of the lamin, have built near the Malays for the time being.

While talking to some Malay traders and one Ching trader (Tam-bie Musah) I learned that a few years ago, great quantities of wild rubber and rattans were collected by the natives about here, and from further up stream, but at the present time it seems to be about finished. The majority of the natives here plant enough rice for their own use.

The Dyaks keep a few chickens, pigs, dogs and cats whereas the Malays substitute goats for pigs, as the Malays are Mohammedans.

February 3, 1914.

Long Bleh to a "Racket" or raft.

Early this morning was rainy and cloudy, but the rest of the day has been fine and hot.

Radin, "Eko", with his crew of Malay coolies left early, but Olmeyer and I had to wait and fuss about to finally get Diaks and paddles enough for our respective boats. We left Long Bleh about ten o'clock. As Olmeyer's boat had a big kajang and is wide, I got in with him. After two or three hours we stopped at a clearing where there were a couple of Dyak houses on the right hand side of the river as we were going, and got a couple more paddlers, then

continued on up stream, stopping once or twice to let the Dyaks gather fruit, though most of the fruit was not thoroughly ripe. The Dyaks always seem to be watching for fruit when they are paddling, and one often hears them remark regarding the various fruits and trees.

Just after dark we reached a "racket" or raft or logs on which was built a house, and not far back from the river; I was told there is a lamin of some "Kenyah" Dyaks but between the river and the lamin is a long stretch of flooded swamp, so we did not go up, though I should like to have done so.

Sleeping on the racket I found quite comfortable though Olmeyer and Eko slept in prahns.

During the evening I caught a young python which crawled up on the raft and gave some of the natives a scare.

February 4, 1914.
Racket to Long Bleh.

With a good early start and hard paddling and poling, we reached Muara Ritan, or the mouth of the Ritan river about half past three o'clock in the afternoon. Here is a "lamin" of Kenyah Dyaks and two small Malay houses on the other side of the river.

The lamin is over two hundred feet long and the frame work of enormous hewn timbers, whereas partitions are made of hewn boards and also of heavy bark.

It was a fine sight to see about fifty male Kenyahs pounding and cleaning rice, preparing for a long journey to Upper Kajan.

Nearly all tribes of Dyaks are composed of both light and dark skinned individuals, but the Kenyahs are all light in color, being almost as white as Europeans or practically the same as Chinese.

Before we reached this kampong at the mouth of the Ritan I had been told that the Kanyah women were very handsome and have extremely long ears, but we did not see them as they were practically all away from the lamin, in the rice fields cutting the paddy.

February 5, 1914.

Muara Ritan to Pondok Batu.

We were informed by Eko that we could get plenty of fine new rice here so we were troubled to find that although the Dyaks have a good crop of paddy, practically none of it has been pounded, but when I went to them this morning, they promised to pound some and bring it to us up here.

The business of Olmeyer and the Radin here, is to make a sketch map showing the locations of the various and numerous caverns in which are found edible bird nests. This work is being done for the Sultan of Koetei.

Leaving the mouth of the river about seven o'clock this morning, we reached the landing place about noon and a few minutes later Olmeyer and Eko in their respective prahns, arrived.

After rice (lunch) things were gotten on shore and made up into packs, and then we marched inland; about an hour's walk brought us to the mouth of a cave, the entrance of which has been used as a shelter for Dyaks when they have been collecting bird's nests. Where we left the bank of the Ritan, the country is all very level but in some places there are swamp or mud holes in the centre of which are springs, some of which are claimed to be saltish, though to me the water tastes perfectly fresh. The path from the edge of the river is perfectly straight for about a mile and a half, at which point it begins to wind back and forth as it leads

up the slope of a very high hill the upper slopes of which are very steep. From this hill we descend a very steep trail, the lower end of which winds about among some rocks and then suddenly brings us out into a little ravine with a fine clear brook in the centre; a few yards to our left the brook disappears among some rocks, and looking across the ravine we see a double entrance to a cavern; the entrance is about twelve feet above the ground in a perpendicular wall of limestone. We cut a tree of about eight inches diameter and made niches in the side of it to serve as a ladder to enter the cave. After a hasty examination of the cave entrance which will serve us as a shelter while we are here, I left Ah Sing to arrange the outfit and with Oesar and one of the Dyaks I began setting out traps.

February 6, 1914.

Pondok Batu, Sungai Ritan.

A few rat traps were set in the cave and in these were caught two small salmon bellied spiny rats, and in the traps outside, one specimen of *Epinyx rajah* and one of *Epinyx whiteheadi*, the skin of the latter destroyed by ants. A Kenyah Dyak of the Radin's party brought me two *cynopterus* bats of a rather dark brownish color.

When going down the slope of the big hill between here and the Ritan, we came across some red *pygathrix* monkeys and I wounded two of them, but only one of them dropped.

At night we hunted with the reflector lamp, following the little brook for a ways and later the line of traps and shot a nice male *Hemigalus*, called by the Dyaks "dengun". As we were returning to the cave, following the brook, we incidently got a few small fish by striking them with a mandow.

February 7, 1914.

Pondok Batu, Sungai Ritan.

To find only one small rat with so many traps is very disappointing, but later in the day I collected some birds, a small *Sciurus parvus* and some bats, new to my collection. These bats I collected late this afternoon in the cave about two hundred yards from its entrance.

The entrance of the cave which we use as a shelter might be referred to as a false entrance as it is only penetrable for about twenty yards, but by climbing over the rocks outside in the ravine and following the stream, we enter the cave and from down inside can see a hole partly clogged by rocks which connects with our shelter above. For a few yards, as we entered the cave (wading in the stream) we had to stoop, for the top of the cave is low and comparatively smooth, as if at some former time it had been waterswept, then as the cave broadened, we stepped up on a soft bank of white sand and had to stoop even lower than before. A few feet further there was a great cleft in the rock above our heads which grew smaller towards its top, but as it was slanting, we could not see more than a few yards upwards. A carbide or an electric reflector lamp would probably be much better for cave exploring than an oil lamp, for the chimneys of the oil lamps break, as a rule, whenever the lamp is anything more than slightly tilted. Still further on, the cave broadened, but the stream flowed under a ledge, so we could not follow, but found another passage which came again to the stream. At this place the roof of the cave was high, possible thirty feet, and it was hanging from the top of this place that I found these bats with white spots on the sides of their back. As soon as the rays of light from the lamp would strike them, they would immediately

begin flying about so I had always to shoot the moment I saw them.

February 8th, 1914.

Pondok Batu, Sungai Ritan.

After having a look at the traps, hunt with a Dyak along the hills and around the springs and shoot a common vittatus squirrel and a pigmy squirrel (*Nannosciurus bormanus*). The latter are usually found on the trunks of large trees and seem to prefer trees having dark rough bark, whereas *Nannosciurus exilis* I have nearly always found on or near lighter or grayish barked trees.

February 9, 1914.

Pondok Batu, Sungai Ritan.

With one of my three Dyaks, hunt along the crest of highest hills westward from camp and finally ascend a high steep mountain, the upper slopes of which were mostly covered with a dense growth of fern which were matted together in such a way as to be almost impassible. Part of the time we cut our way through them and a part of the time crawled over them. We reached the highest peak about noon and found that on this, there were some small trees. By climbing one of these trees I got an excellent view of the entire country which is mostly level and except near the rivers, all heavily forested.

On the lower slope of the mountain I shot a small squirrel, possibly *Sciurus Parvus*, but this variety is a true arboreal one and very active.

February 10, 1914.

For days ago I shot two red pygathrix monkeys; one of them dropped and the other, only wounded, escaped. This morning when

the Dyaks went to look at the traps they found this escaped red monkey dead on the trail, where it had dropped from the trees above.

Game of all kinds is very scarce here, mammals especially; the only monkeys are Gibbons and red pygathrix, but the former I did not see but heard them calling in the morning.

Olmeyer and the Radin have finished surveying and the Radin's men have collected about fifty pounds of edible swifts' nests, but they say the caves have been robbed of many pounds of nests, by Malays or Dyaks, most likely the former, for I have never known a Dyak to steal anything. Never again shall I make camp in a cave, for it is too damp, gloomy and dark and almost impossible to properly prepare specimens on account of the dampness. After being two days in the cave, two of my Dyaks got fever, so went back to the bank of the river; on the fourth day Ah Sing and Cesar both had some fever and yesterday was rainy so I got cold & wet, and about five o'clock sent Cesar and Ding out to get more fire wood. Ah Sing had a chill and lay shivering and moaning on the floor of the cave.

When the two who had gone for wood returned, all was dark, and they dumped the wood on the floor beside me. As I bent over, some smouldering sticks which I had been vainly trying to keep ablaze, I reached for another piece of wood and just as my hand touched it, a shock of pain ran up my arm, causing me to jump, and on getting a match, found a scorpion which had stung me. I knew of nothing I could do to relieve the pain which was intense, and as the natives knew of nothing to relieve the pain, I had an almost sleepless night.

February 28, 1914.
Samarinda, Koetei.

Arise about 7:00 o'clock after an almost sleepless night and spend the morning writing, sorting over my papers, etc. P.M. pack my trunk to leave at Mr. Olmeyer's, and send Kayado, Ah Sing & a new Banjerese boy named Ibut, with the prahn to the landing of the "Muara Klindjan" from where we left about 5:30 P.M.

The "Muara Klindjan" is a small steamer belonging to the "Borneo Sumatra Handel My." of Samarinda, and plies between Samarinda and Long Iram. For a mile or two we were towed astern but were continually swinging about, so lashed the prahn to the port side of the steamer; to starboard was an iron barge which carries cargo and passengers, of which there were about ninety or one hundred, practically all Banjerese.

At Samarinda the river, Mahakkam, is very broad, something over 500 meters and has an average depth of about fifty feet. Just below Samarinda, the river cuts through a low long ridge or hill, also up stream from Samarinda to Tenggarong there are low hills on either side of the river. All the land is cultivated or else has been at some previous time, and practically no original forest remains, except in swamps. The current is strong and is not much influenced by the tide, except in times of draught. Above Tenggarong there are a few low hills and these are partly cultivated; the natives plant some rice and bananas and a little corn, also pumpkins.

The steamer stopped for a few minutes at Tenggarong and then went on up stream, shortly after daybreak on March 1st reaching a kampong on the north bank of the river named Seboeloe. From Seboeloe we steamed steadily until reaching "Moeara Kaman" and then steamed on again reaching "Kota Bangoen" about 8:00 P.M. where we are spending

the night and I am glad, for last night we crashed into a log and might have badly damaged my prahn.

From Seboeloe on, there are no hills nor high land and on either side of the river stretches away as far as the eye can reach, a low alluvial plain which a good part of the time is under water, which accounts for the lack of real forest and the abundance of grass and reeds.

March 2, 1914.

Leaving Kota Bangoen about 7:30 A.M., we steamed steadily, reaching Muara Muntai shortly after noon. The farther we go, the thicker the jungle along the river banks, though there are no hills.

Leaving Muara Muntai early in the afternoon we steamed through a small passage-way leading to one of the so-called lakes of this district, which more resembles an enormous marsh than a lake, though during the very rainy season the water carries away most of the grass, at which time it becomes a real lake; at present it is between the wet and dry seasons.

About all these lakes, birds of many varieties are abundant, and from the bridge of the steamer I had a good chance to see some of them with my binoculars. The most conspicuous birds were large white egrets which in many places simply swarmed, and from a distance they made the dark green trees have the appearance of being covered with white blossoms. In some places, more especially at the entrance of the lake, egrets, herons, and hawks intermingled as they were busily fishing.

The birds I could clearly see were egrets, small white herons with dark brownish backs and in some cases, probably young birds, brownish necks, little green herons, large herons something like a

"Great blue heron" but with brownish shoulder feathers, underparts and sides of neck; white headed, red bodied hawks were abundant; there were also two other larger species of hawks which were not so plentiful. Two species of rails were common. Tree duck were common, seen in flocks and in pairs. Anhingas were also fairly common.

The natives claim that during the dry season, which is the nesting time, they gather great numbers of birds' eggs for food, but their principal occupation is fishing during the dry season.

Having delivered cargo and passengers at a kampong at the far side of the lake, we returned to Muara Muntai where we stayed until midnight.

March 3, 1914.

Muara Pahoe was our first stop at 10:00 A.M., having steamed steadily since midnight. The country hereabouts, while slightly higher than that of Muara Muntai is low and the banks appear everywhere to be covered with old second growth jungle of which the most conspicuous evidence is the presence of two varieties of palm trees, namely the sugar palm (banda) and the betel nut (penang) which are nearly always to be found where natives have made clearings.

Having discharged some cargo at Muara Pahoe, we proceeded on up stream, reaching Melak at sundown. The soot from the steamer's funnel has simply covered my prahn and makes everything very dirty. Since leaving Samarinda, we have had but one slight shower, that was the first night; since then the weather has been very clear and hot. Melak, like practically all the native Malay villages, consists of one long line of houses along the river bank and then a line of bath houses built on logs in the water in front of the houses.

Scattered along between Muara Pahoe and here, are a few clearings where natives, mostly Dyaks, have planted paddy and pisangs (bananas). The soil is very dark and looks rich.

March 4, 1914.

At 3:00 A.M. we left Melak but I only stayed awake long enough to see that we were going all right and then slept until about 7:30 A.M.

We made a stop at Muara Mujup where there are a few houses and a mixed population of Malays and Dyaks; after leaving this kampong, I went up on the bridge of the steamer, with my rifle tried a few shots (5) at crocodiles, and hit three of them; one was killed instantly, the others floundered about and got into the water.

We had a little rain about midday and reached Long Iram at 4:30 P.M. and I immediately went ashore and met the Controleur, Mr. Muller. Bring the prahn up in front of the Pasang Grahah and spend the evening talking to a Mr. Degen who is also staying at the Passang Grahah.

March 5, 1914.

Arise early; discuss tropical photography with Mr. Degen until time to go to the Controleur's office.

Meet the Controleur in his office and make arrangements about going up stream. Mr. Muller has loaned me a government canoe about three feet wide and 45 feet long, which I can use to go to Ma-Mehak, and he will later tow my prahn with the government steamer when there is high water.

Spend the afternoon getting ready to leave to-morrow. Have a heavy shower just about dark. Spend the evening with Mr. Degen in a Chinese Toko, and hear some real snake stories told by an old Chinaman.

March 6, 1914.

At Long Iram is stationed a garrison of soldiers, and when I left this morning, two or three officers and the Controleur came down to see me off. Mr. Degen and I started at the same time. I leave Ibut and Kayado with the prahn and have with me Ah Sing and six Dyaks from Long Dahli, a kampong on the right hand side of the river, a couple of miles from Long Iram.

The day is very hot and the perspiration fairly runs from the bodies of the Dyaks.

We were paddling along the left bank of the river shortly after noon when the Dyaks saw a crocodile sunning itself on the opposite bank, so we paddled up stream a little further and then crossed, and when about a hundred yards away, I fired and hit the animal in the head but unfortunately the bullet smashed all one side of the head and spoiled it; it was the first long narrow snouted crocodile I have seen at close quarters, about ten feet long.

Reach a Bahan, Dyak kampong at sunset and make it a camp for the night, "Djkalang."

Mr. Degen amused the Dyaks with an electric machine by giving them shocks. They believe it some sort of spirit or "^aHentu."

March 7, 1914.

Cook rice in a hurry and get started about 6:30 A.M., shoot some birds, much to the delight of the Dyaks, and also catch two snakes, but my alcohol and formaline got water spilled in it and I am afraid is not strong enough to be of any use.

Call for a few minutes at a Balian kampong (Long Klihan) and meet Hadji Buah, the female chief. Pass several prahns of Kenyah Dyaks from Upper Kajan on their way to Long Iram.

Reach Mahok Teboh just at dark and spend the night there with

two hundred Dyaks and two Dutch officers from Upper Kajan. Spend the evening talking with the two officers, Mr. Degen & the Dyaks.

March 8, 1914.

Leave Mahok Teboh early and reach Long Hebung after dark; a long very hot day, followed by a fine moonlight night.

March 9, 1914.

Yesterday and to-day the Dyaks have been poling more than paddling and the current is very strong and in some places rapids, though easy ones to go up. The Dyaks are always watching for fruit and whenever they see any ask my permission to get it and they jump from the boat with a yell and run after it; most of the durians which they get are over ripe but many other fruits are fine. Shoot a large hawk that happened to fly close by.

Reach Laham at noon; at Laham there is a Catholic Mission school with an attendance of about seventy Dyak boys from kampongs between Long Iram and Ma-Mehak.

Mr. Degen and I had lunch with the pastor. In May, 1912, this Pastor and I were passengers together from Banjarmasin to Samarinda, but at that time we did not talk to each other, not having a language in common, but to-day we spoke Malay. When I go down the river, I will visit Laham again and the Dyak boys have promised to get me specimens. Leave Laham about 2:00 P.M. and reach Long Huree about 5:00 P.M. in the rain.

Spend the evening laughing and playing tricks with the Dyaks, most of whom can speak Malay.

March 10, 1914.

Learning from the people here that I could save a day by going

from here to the Punans up the Sungai Merah instead of first going to Ma-Mehak made me change my plans and send my Dyaks from Long Iram back with the canoe in which I had come and get a new crew from Long Huree consisting of a long boat and five Dyaks including the Chief of the kampong.

Before I got started it was about 8:00 A.M. and cloudy; the canoe has no sides and consequently when loaded and manned had about two and a half inches above the water and at first I was rather anxious as the current was very strong and in many places were slight rapids.

About half hour's poling and paddling brought us to the mouth of Sungai Merah, a beautiful stream with hills on all sides, lots of hanging vines, creepers, etc., In some places rapids and in other places deep pools with lots of fish. In many places the branches form an arch overhead.

Shortly after noon we got some rain but it did not rain hard until about 5:00 P.M. just as we reached the deserted leanto of some Punans. As it is not certain how much farther up stream the Punans are, we decided to spend the night here.

March 11, 1914.

Last night and to-day I have had fever ($102-2/5^{\circ}$) and feel miserable and have eaten nothing. Owing to the rain, the river is very high and logs, trees and rubbish have been carried along by the muddy water. I hope we can reach some sort of Dyak place to-morrow, for sleeping on the ground here in the wet is far from healthy.

March 12, 1914.

I awoke about daybreak. The Dyaks had caught a mess of fine fish and roasted them over the fire. Though it is cloudy, we got

no rain last night and the river is again normal.

Get underway about 7:00 A.M. and reach the dilapidated huts of the Punans about 11:00 A.M. Feel rather shaky so loaf about and talk to those of the Punans that can speak Malay.

The Punans here plant some paddy so are a little better off than some of their tribe in Berace who live on only what they get with the blowpipe and spear, using sago in place of rice and but little of that.

The entire population here consists of thirty-six persons, including children. There are two or three young fellows and five or six young girls.

During the evening, much to my delight, and for my amusement, the girls and young men danced (by the light of a damar torch). They all looked fine and were decorated with many strings of beads of every colour. The girls have very long ears, reaching down to their breasts and the ear-rings are of lead, also white metal or white brass, and four or five inches in diameter. Their "Tas" or small skirt is composed of a number of colored cloths made into one, red in the predominating colour and next comes yellow; on some of them are designs, and all have quantities of spangles. The head dress consists of a heavy band of red and yellow and other colored cloths wound about with beads and dotted with spangles which shows off to advantage their beautiful long black hair.

The male Punans have stars, circles and various other designs tattooed on various parts of their bodies, but the females are tattooed only on the hands and arms, whereas, other tribes of Dyaks, the females are tattooed on the feet and upper part of the legs also.

March 13, 1914.

Hunt with Tekio for about four miles up along the west bank on the stream but inland; get two squirrels and a crested quail; a Dyak in a canoe met us up stream and we returned by the river; skin the squirrels and quail. Rain late in the afternoon. Spend the evening talking to the Punans. I have broken out with a red rash from the top of my head to the soles of my feet and the itching it causes is intense.

March 14, 1914.

With Lekio cross to the east side of the stream and hunt through fine heavy forest until 1:00 P.M. About 11:00 A.M. we had a hard shower that lasted about half an hour.

I had nothing to eat before I started, so was glad to find fine durians and two other kinds of fruit to feast on.

Though I heard several squirrels, I got but four, 2 vittatus, 1 atricapillus, and 1 Ratufa with a wound on its back, half healed. This specimen has very few black hairs, practically all the upper part is brown.

From a litter of pigs, I shot one which is about two months old and shows well how the very young are striped; the Dyaks here have several as pets which their dogs have caught; all are striped, though one is much larger than the one I got to-day.

I was surprised to see fairly fresh rhinoceros tracks, as they are said to be rare hereabouts.

March 15, 1914.

Go down stream in a canoe with Lekio and hunt to the east of the river where the country is slightly less mountainous than where we hunted yesterday and the day before but the trees are not so high.

Shoot three *Ratufas*, two *Sciurus atricapillus* and two birds and see two specimens of *Sciurus borneensis* which is more common here than anywhere. I have been but they are so quick that I do not have time to shoot; they seem only semi-arboreal.

Afternoon and evening rainy.

March 16, 1914.

Early in the morning hunt to the westward and get a couple of squirrels. I let Lekio take the rifle and he hunted until noon but got nothing. Rain early in the afternoon. Start about 8:00 P.M., with Ulih, Lekio and Jupe, in a canoe and hunt down stream for about two miles and get a mouse-deer and a tiger-cat; return about midnight in the rain.

The fangs of the tiger cat (*Felis Nebulgas*) are in a great demand by the Dyaks and Lekio begged very hard for those of this specimen.

March 17, 1914.

I have no more 12 go. shot cartridges so cannot get many specimens. During the night there was heavy rain and it must have been even heavier upstream for the river had risen between ten and fifteen feet during the night and I was surprised to see water flowing beneath me when I awoke this morning. Go down stream in a canoe with Gano, Arup, and Jupe and fix a net in the mouth of a small tributary of the river and in three hours' time, when the water had fallen ten or eleven feet, we got some fine fish; other Punans had done likewise and had had good luck also.

About 4:00 P.M., leave the house with Lekio and hunt to the northwest, get one bird only but find many durians and some yellow durians "Tay", but most of the yellow ones had been eaten by a bear before we came.

March 18, 1914.

Arise at daybreak, pack my specimens into boxes and start down stream about 8:00 A.M.; make several stops to pick up fruit of various kinds. I intended going to Ma-Mehak but found the Mahakam was very high so we came to "Long Hurei", the first kampong below the mouth of the Merah. Lekio, Jupe and Ulih brought us down.

During the evening, talk to the Dyaks who are very much interested in the specimens I have gotten.

Since I left here a week ago, three Dyaks have died of fever and many more have fever, and have come to me for medicine this evening.

March 19, 1914.

Long Hurei, Mahakam R., South bank.

Hunt about in the second growth jungle about the paddy fields but get few specimens. At night talk with the Dyaks and with a Dyak boy, Djenaon; hunt near the house and get a plandok or mouse-deer.

March 20, 1914.

There was heavy rain during the night which continued until about 10:00 A.M. so spoiled my plan to hunt with Djenaon and Jien on the other side of the river. After hunting for a while on this side of the river, I crossed, and hunted until about sundown.

To-night I shot two plandok within thirty seconds walk of the end of the house, much to my surprise and to that of the Dyaks.

March 21, 1914.

Heavy rain nearly all last night and continued until about 9:00 A.M. and began again early in the afternoon.

The Dyaks here are certainly fond of gambling, and when they have nothing else to do and practically every evening they are

gambling. To-day they would play cards for a while and then change off by having a cock fight. A Malay had come up and had some fighting cocks and matched them against those of the Dyaks. They fasten a miniature "keris" or dagger to the cock's right foot and the fights that I saw were soon over for the cocks strike hard and the knives are sharp. The first fight did not last over a minute, the Dyak's cock receiving a thrust that reached its heart.

Late this afternoon the little steamer belonging to the Government arrived with my prahn in tow, having left Long Iram yesterday morning.

Many Dyaks came to look at my prahn which is the first of its kind to ever reach here, and they insist that it is a ship, not a "prahn."

With Djenaon and Jok Han hunt from 8:00 P.M. until 11 P.M. with a lamp and get a half grown musang which was the only thing we saw.

March 22, 1914.

Rain nearly all day. Djenaon got some small birds with his blowpipe and this afternoon I got a crow. The crow here has a call more like the Fish crow than the American crow.

There was no change of hunting with the lamp as it began to rain shortly after dark so I went to the lamin for an hour or so & watched a "Medicine man" dance and sing to the accompaniment of drums, etc. because his four year old son has fever with convulsions at intervals.

March 23, to March 29, 1914.

On the 23rd we had heavy rain, so I waited another day at Long Hurei.

The 24th, we came up stream and after dark reached the Punan kampong; the current was very strong and I was just about exhausted from paddling and poling. I slept in the house of Arup and the next morning awoke with an awful headache and fever but managed to get a

camp made by noon. I had to turn in and from then until this noon, 29th, I have been unable to eat or move about.

March 30, 1914.
Sungai Merah.

Last night I hardly slept at all and had a bad headache but to-day felt better and this afternoon put out seventy-five more rat traps.

March 31, 1914.
Sungai Merah.

This morning I shot a pigeon (No. 1290), like a punai in form but with a red head, white belly, pink breast and black fore throat. It is the first of its kind I have seen and the Dyak boy here with me says he has never seen this species. It was feeding on a small yellow fruit in the top of a tall tree.

To-day we cut brush and saplings, making a fence of them about five hundred yards long, through fine heavy forest, every ten or twelve yards making an opening in the fence, and put a trap. We have now set exactly 200 traps.

April 1, 1914.
Sungai Merah.

With Djenau, hunt from early in the morning until late in the afternoon. The country here is all hilly and heavily forested but game is very scarce. After dark, hunt with the reflector lamp but see nothing.

April 2, 1914.
Sungai Merah.

Rain during the forenoon.

Shoot two small squirrels, possible "*Sciurus parvus*", Nos. 1426

and 1427. Their call is very shrill and distinctive; might almost be called a whistle. They are very active and though I have heard them several times, it is difficult to catch sight of them.

April 3, 1914.
Sungai Merah.

Hunt back from camp until about noon, shoot a mungos as it was examining a bird which had been destroyed by ants and thrown to one side of the line of traps. Go out again during the afternoon; about 5:00 P.M., hear the roaring sound of rain in the distance so hurry back to camp just in time to keep dry. Rain hard during the evening.

April 4, 1914.
Sungai Merah.

Several times during the night I was awakened by the rain and by falling trees and sticks; about 4:00 A.M. I awoke and found the river had risen about fifteen feet and the water was several inches deep beneath our "pondok" or temporary house, but as our floor was five feet from the ground I thought we were out of the reach of the water; however, shortly after daybreak the water reached our floor and was rising steadily. We hung everything that was possible to hang, from the rafters including rice, salt, boxes, clothes, pots, etc.

The two rear corner posts of the pondok are trees and it was to these I made fast, with rotan and rope, the boxes that were too heavy to tie in the rafters. There was no place to sit, so we (Iboet, Djenan, and Ah Sing) stood and watched the water rise until it was nearly up to our knees.

There were insects by the hundreds; ants of several varieties were the most abundant; there were also grass-hoppers, roaches, spiders, scorpions, centipedes, crickets. We also saw many frogs,

toads and snakes but only three or four came within reach and these we caught.

About 10:00 A.M. the water began to fall as it had stopped raining and the sun was shining brightly. At first it began to go down very slowly and later more rapidly; from 11:45 A.M. until 12:45 P.M. it went down exactly 34 inches and has continued at about that rate. Now (6:00 P.M.) the water is only about three feet deeper than normal.

April 5, 1914.
Sungai Merah.

Hunt slowly along the trail leading inland with Djenan, get two or three specimens and find two trees of yellow durians (Lay) on which we feasted and brought ten of them back to camp. During the afternoon hunt to the north of the trail and shoot more specimens.

When I returned to camp I was surprised to find three Dyaks from Long Hurei, Adjang, Jien and Hang, who had come to take me downstream.

Djenan threw the body of the marten which I shot this A.M. into the river before I had taken its skull; we spent some time diving for it but as the current is rather swift and many sticks and logs on the bottom, we were unable to recover it.

April 6, 1914.
Sungai Merah to Long Hurei.

Jok, head of the Punans, came to see me this morning and as they fear there are head hunters about, he himself will not go down with me, but Gano, Meru and Peru will. We began early and took up the traps, 200 in all, which have been carefully set and rebaited every

day for more than a week and during that time have caught less than a dozen specimens.

About 9:00 A.M. we started down stream and arrived at Long Hurei about three hours later.

Find things here on the boat very damp, not spoiled however.

From there to here it has rained every night and nearly every day.

April 7, 1914.

Long Hurei and Laham.

With Jien, Adjang and Djenan, hunt in the second growth jungle along the bank of the river and get some small squirrels and birds.

There are many Kenyahs, Dyaks from Upper Kajan, here and some of them came to me for medicine for fever, backache, headache, etc. and after giving them some medicine I made some photographs of them and also of Dyaks here and one or two of the Punans who had come down from Sungai Merah with me.

Leave Long Hurei about 2:00 P.M. and drift down stream to Laham. Just as we arrived here (Laham) the little government steamer "Mahakkam" was leaving, going up stream and intow had a number of canoes full of Dyaks on their way to the headwaters of Mahakkam and Upper Kajan.

Go ashore and meet the Pastor, Mr. Gossens, and spend the evening with them.

April 8, 1914.

Laham.

The steamer returned from up stream and stopped here for about 2 hrs. and I had a talk with a Lieutenant who was aboard and we dined with the Pastor.

Dyak boys bring me some specimens.

April 9, 1914.
Laham.

Hunt for about three hours in the forest beyond the rice fields but get nothing. I have a cough that has brought on fever and nausea and I have nothing that seems effectual in stopping it.

April 10, 1914.
Laham.

Make several exposures of Dyaks - "Anak Schoolah."

The Controleur at Long Iram sent me an ant-eater alive; previous to killing it, I made a couple of pictures, but am unable to hunt, feel weak, fever, headache and nausea. Receive more specimens from the Dyak boys here.

April 11, 1914.
Laham.

Have fever; stay in the prahn during the day; at night hunt for about half an hour & get a plandok.

April 12, 1914.
Laham.

Feel better; first thing this morning develop some plates &, later expose more plates of Dyaks in Hindu costume and dine with the Pastor and spend the evening watching the Dyaks dance; they are as clever as any I have seen.

It continues to rain every day and night at intervals.

April 13, 1914.
Laham.

Many of the Dyak school boys are catching birds for me with "gutta", or the sticky sap of roots which they put up in the trees.

Hunt at night and get a plandok which was the only thing seen.

April 14, 1914.
Laham.

About 2:00 P.M. go up stream with two Dyak boys and cross to the other side of the river and hunt back from the river for about two miles, following the ridge of a small range of hills; shoot a couple of squirrels. We had returned to the river and gotten into the canoe when we heard an animal growl; at first I thought it came from a dog but in a moment it growled again & we all thought it was a bear so I climbed ashore and followed but could not catch sight of it so wandered along the side of the hill. Of a sudden I was surprised to hear a rustling of the underbrush and had just time to put a shell loaded with buckshot back into the gun when the bear appeared and was coming in my direction about thirty feet from me; I shot with the buck shot but as it did not drop I gave him the other barrel with number four shot; after that he only went a few paces and dropped. I called the Dyak boys who had been in the canoe; they were surprised and delighted that I had gotten a bear for they were very much afraid of it. The Dyaks of the kampong here say this specimen is extremely large - (110 lbs.)

April 15, 1914.
Laham.

Yesterday and last night there was no rain and the river has gone down several feet; perhaps by day after to-morrow we can start for Long Iram if there is not a great deal more rain.

April 16, 1914.
Laham.

First thing this morning, Jok, a Dyak boy, brought two pigmy squirrels (one N. Exilis) and about five o'clock this afternoon, another boy brought some small bats with rather long tails which

are the first of their kind that I have seen. He said he found them among some bamboos.

Have dinner and spend the evening with the Pastor. The Dyak school boys came, dressed in "Hudu" costume and sang me a farewell song and one of them made a speech to the same effect, for to-morrow morning at daybreak I will start down stream and hope to reach Long Iram by evening.

April 17, 1914.
Laham.

When I awoke this morning I found that the river had risen several feet during the night so I will not start down stream until to-morrow or until the current is not so strong.

This afternoon I hunted on an island down the river about half a mile from Laham; two Dyaks went with me and we hunted until about five o'clock but saw only a few birds and no mammals; most of the jungle is second growth.

Get several more specimens from the Dyaks.

Spend the evening talking with Pastor Cossens and his two companions.

April 18, 1914.
Laham to Long Iram.

I awoke just at dawn and about ten minutes later we cast off and began drifting down stream. There were several Dyak boys just taking their morning bath and as we left they gave us the usual farewell - "slamat jalan."

The current, though strong enough to carry us along at a good rate, was not troublesome and most of the time we kept in midstream.

Between nine and ten o'clock this morning we passed about

thirty boats of Dyaks and Javan soldiers with one Dutch Lieutenant; they are on their way to Upper Kajan.

During the afternoon I exposed some plates, landscapes, pictures of the river but have doubts as to whether or not they will be good negatives for two or three dozen of my plates have not been good, the climate having affected them.

We hoped to reach here (Long Iram) by daylight, but at sunset we were several miles up the river but decided to keep going. We reached here at eight o'clock and tied up to the Government dock. Captain Muller, the Controleur, came down for a moment.

While drifting down we saw many large pigeons (pergum) and several black Ibis (Teong belar) Dyaks.

My rifle was ready and I had hopes of getting a shot at a "dugong"? but only saw one once, and no crocodiles.

April 19, 1914.
Long Iram.

All through the night it had rained hard and there was much thunder and lightning every few minutes. The rain continued until nearly nine o'clock A.M.

I called on Mr. Muller and was delighted to see many Dyak implements and models of Dyak houses which he has collected to send to the "Colonial Exposition" at Samarang, Java. He and Mrs. Muller and their three children came to the prahn and I showed them specimens of birds, mammals, and reptiles, in which they were very much interested.

Spend the afternoon on the prahn and do some writing.

Evening dine with Captain Muller.

April 20, 1914.

Long Iram to Melak.

My little musang died during the night. This animal (No.1495) has been a pet since its capture two months ago, and since that time it has been kept on the boat and fed on condensed milk, rice, and bananas. The latter part of the time it was very active and would play about like a kitten. When taken on land it would follow close at my heels and on the boat did not like to be caged but liked to wander about examining everything aboard especially at night.

It probably ate some arsenic which caused its death.

This morning I called on Lieutenant Metsis(?) and he showed me a beautiful mandow which he had brought from Upper Kajan, one of the finest I have seen.

Mr. Muller and his family came to see me off.

Leave Long Iram about noon in tow of the Government steamer, Mahakam, and arrive at Melak at sundown.

The captain of the steamer, a Malay, came and told me that there are lots of deer about Melak, so about 8:00 P.M. I started out with the lamp and hunted until about one o'clock A.M. I saw the eyes of two deer but could not get near them as the water was deep between them and me.

The banks of the Mahakam river, close to the river are high enough so that they are rarely flooded but back from the river is all low and when the river is high it is almost impossible to walk inland.

April 21, 1914.

Melak to Tenggarung.

About 5:30 A.M. we left Melak and made no stops. During the day I exposed four dozen of plates and hope that some of them will make good pictures, but the plates are bad, having been kept too

long in this climate.

Arrive at Tenggaraung about nine o'clock P.M. and tie up to the Sultan's landing.

April 22, 1914.

Tenggaraung and Samarinda.

Arise just at daybreak and about eight o'clock start for Samarinda aboard the Mahakam and arrive there about 10:30. As soon as we landed I called on Mr. Spaan (Assistant Resident) and then went to Mr. Olmeyer's.

Have dinner and spend the evening with Mr. Gray. During the afternoon do some errands.

April 23, 1914.

Samarinda.

Spend most of the day with Mr. Olmeyer at his home. Learn that at Seliman & Sungai Meriam there are many cases of smallpox; at Seliman an American had died of it and two or three more Europeans are sick there.

April 24, 1914.

Samarinda and Tenggaraung.

Leave Samarinda about 8:30 A.M. in a small steam launch "Moelia" and about three hours later reach Tenggaraung.

Open the box of traps which the Museum sent me and find that there are three kinds of traps, none of which I have seen before, but they look good and I am anxious to set them and also try the liquid trail scents and trap baits.

Call on Mr. and Mrs. Robinson; my boat is tied up to the logs behind his saw mill.

Meet Radin Bamban Somoro and go for a walk about the kampong with him.

Have dinner and spend the night at Robinson's.

April 25, 1914.
Tenggarung.

Spend most of the day aboard, writing. Have lunch with Mr. Robinson.

Late in the afternoon, paddle around Pulo Tenggarung, an island about a mile long surrounded by the Mahakam River. We were within thirty feet of a crocodile (10 ft.?) which slowly swam by; it would have been useless to shoot; if killed, it would sink to the bottom immediately.

During the evening, develop two dozen plates and then throw the lot overboard; the climate has affected them, so that they are all fogged and have also lost their speed.

April 26, 1914.
Tenggarung and Sungai Djambajan.

Learning from Mr. Robinson that the Controleur's wife, Mrs. Meyer, was the owner of a tame tiger-cat (*Felis nebulosa*) and many other animals, I went to call on her this morning about 7:00 A.M. She showed me several birds, parrots, ducks, pheasants, etc. but I was most pleased to see the beautiful tiger-cat, a large specimen and as tame and gentle as any house cat, but it is very lively and very strong.

Mrs. Meyer also showed me skulls of various mammals, including one of "babi-rusa", the pig-deer of the Celebes and made me a present of two snakes and an imperfect skull of a rhinoceros.

With Mr. Robinson's twenty-five foot steam launch lashed to the side of our prahn, we first went up stream to the kampong and bought some rice, dried fish, turtle eggs, etc. and then went down the Mahakam and up the Djambajan. As we left Tenggarung it began to rain

and continued until early in the afternoon. The Djambajan is a small stream and as we steamed along, branches brushed against us. About four o'clock in the afternoon we reached a place called "Lembus" where there is a deserted coal hole belonging to the Sultan.

At the mouth of the river there is a kampong and at the headwater of the river there is also a kampong of Dyaks or Basaps, but between the mouth and headwaters of the river there are at the present time no inhabitants.

April 27, 1914.

Sungai Djambajan, Lembus.

With Ah Sing and Ibut paddle up stream and hunt to the west of the river for a place to set out traps. There is a hill four or five hundred feet high but is covered with second growth that in some places is so old that it looks almost like original forest; however, the only original forest is swampland.

Pigs and deer must be abundant for in some places the swamp is simply ploughed up by their tracks.

Start from the bank of the river and set rat traps straight westward across the swamp. While crossing the swamp this morning I saw bear tracks and also a tree ripped open by a bear who wanted the honey which was inside.

About 8:30 P.M. with the three men start up stream hunting with the lamp; there was nothing, so after about two hours paddling, we turned and began drifting and slowly paddling down stream. We had passed several crocodiles but as a rule could only see their eyes or one of their eyes, which when seen with the reflector lamp appear like blood-red embers. When we rounded a bend in the river I was surprised to see a crocodile start out from the bank about thirty or

forty yards ahead of us; it disappeared beneath the water and a moment later came to the surface about fifteen feet from me and we were drifting directly towards it. I shook the lamp but as it did not dive, I picked up the shotgun with my right hand and fired; the top of its head and the end of its nose were the only parts above the surface of the water and I aimed for the top of the head which was about five feet from the end of the gun. It was a large specimen and made an awful splash and its back hit the bottom of the canoe.

The weather has been fine and clear and the night is clear and cool.

April 28, 1914.

Sungai Djambajan, "Lembus".

With the fifty rat traps set yesterday, get one Tupaia and one rat, the latter spoiled by ants. Shoot a pair of proboscis monkeys and some squirrels. Set about eighty more rat traps and some large traps.

There was a squall this afternoon with some wind and black clouds, but no rain; otherwise a fine day.

April 29, 1914.

Sungai Djambajan, "Lembus".

This morning I was delighted to have caught six rats; three however, were spoiled by ants. Ants sometimes attach specimens before they are dead. On two occasions, I have found rats still breathing and their ears half gone and the skin eaten off their feet and about the snout by small ants.

Spend most of the day making a long hedge or fence of branches, leaves, etc. with openings every few yards in which a trap was placed; use trail scent on my shoes and put the liquid animal bait near the traps.

Morning partly cloudy; rain during the middle of the afternoon.

April 30, 1914.

Sungai Djambajan, "Lembus".

The boys awakened me before daylight and after hurriedly making tea and eating a few biscuits, get in the canoe with Ibut and go up stream and then ashore and follow up the trap line to find we had caught only one rat and one small squirrel. From the end of the line of traps I branched off and followed up some Wah-wahs which I heard in the distance; there were three of them, but after getting two of them with four shots, the third had escaped. I went back to the traps and as I only had two more shells and these loaded with number four shot, I sent Ibut with the specimens and told him to bring me more shells. After he had gone I stood still for a few minutes and then began walking quietly along towards the end of the line of traps. About fifteen yards to the right of me I noticed a vine shake slightly, so I hesitated and watched, expecting to see a squirrel or Tupaia, but instead I saw a full grown bear. The underbrush was pretty dense so I could not see the bear all the time; however, a moment later it came into view about ten yards away, swinging its head from side to side and sniffing; I fired for its shoulder but it did not drop but began thrashing about and growling, or rather howling in a terrible manner; at this point I discovered that there were two bears, but I stood still, hoping the one I had shot would drop dead but it only continued growling, so I stood still. They were both sniffing about in the underbrush but finally I found one of them coming my way so I fired, and as it kept coming I started up the trail at full speed and slipped and fell flat before I had gone five yards, but practically no time

was lost and when I reached the river I found the boy had just started down stream so called him back and together we hurried to the boat, got some shells loaded with buckshot, returned, and found the bears had gone but could hear their growls in the distance, so followed up and down hill for more than an hour. The perspiration drenched my clothes but we finally came close to the bears just as they reached their home, an enormous hollow tree on the side of a hill. I got them both and skinned them on the spot but it was about 3:00 P.M. when we got back to the river for we had lost our way while following the bears which are fine adult specimens.

One of them was the fattest wild animal I have ever seen, for its size. The fat on its rump was about two inches thick.

Rebait the traps just at dusk and get a fine jungle fowl.

May 1, 1914.
Sungai Djambajan, "Lembus".

There were only three rats in the traps this morning and their skins spoiled by ants. Hunt until noon and go out again about 2:00 P.M. and hunt until dusk; get several squirrels and put out more traps.

May 2, 1914.
Sungai Djambajan, "Lembus".

Nothing in the traps this morning, but while visiting them I came upon a band of black Pygathrix monkeys and got six of them. Go out again about four o'clock in the afternoon and hunt until dusk; get five more specimens including another monkey like those gotten this morning.

May 3, 1914.

Sungai Djambajan, "Lembus".

All we got from the traps to-day was the foot of a rat and a small bird. Hunt inland until about 11:00 A.M. but have poor luck; get a small Wah-wah and a squirrel. Hunt again during the afternoon and get a plandok and another squirrel. This forenoon I heard a bear howl in the distance but could not find it.

Both species of *Nannosciurus* are common here for I often hear them but they are well protected by the dense foliage. Most of their calling is done just at dusk when it is most difficult to try to locate them.

Cloudy all day and rain shortly after dark.

May 4, 1914.

Sungai Djambajan, "Lembus."

Get one small rat (*E. whiteheadi*) from the traps. From day-break until 11:00 A.M. I climbed up and down hill hunting to the northward or inland from the river; get two species of squirrels. After going inland for half an hour or so, I came to good heavy forest and rolling hills. In many places there are outcrop of coal which seems to be of a good quality; in some places the soil is red and in other places there are whitish rocks, soft, and appear to be sandstone. There are also two places where there is coal burning down in the earth and the smell of coal gas is very strong which escapes from the fissures in the earth. At first I imagined there was only one hill here but find that inland to the north and west is all hilly; the sides of the hills are so steep that it is very difficult to come down them.

Hear many Wah-wahs and two or three *Ratufas* but was unable to get close to them.

May 5, 1914.

Sungai Djambajan, "Lembus."

From before sunrise until the sun was high I hunted up stream on both sides of the stream but there seemed to be nothing about.

Showers during the afternoon.

In the traps, three rats, one of them destroyed by ants.

Several canoes, Malay Rattan and Gutta hunters, passed down stream during the day, their canoes piled with bundles of rattans.

May 6, 1914.

Sungai Djambajan, "Lembus."

From the two hundred traps, one small rat (*Epimys whiteheadi*).

In the center of a large swamp to the west of the river is a small spring where many birds come to bathe every afternoon; at this spring I waited from the middle of the afternoon until dusk and had with me both my gun and blow-pipe but my darts are not poisoned and are therefore not very effective. With the gun two small squirrels (*Sciurus parvus*) were collected. This species is very seldom seen more than six or eight feet above the ground; they seem to prefer open jungle near the borders of swamps or near the river banks and one usually sees them running along old logs and roots or scurrying from one log to another.

This morning I followed a specimen of *Sciurus borneensis* for about five hundred yards but could not get a shot at it and finally lost track of it.

May 7, 1914.

Sungai Djambajan, "Lembus."

From the traps, one rat, skin spoiled by ants.

Get another black monkey "Lutong" and its uterus contained a nearly mature embryo. With this species I have as yet seen but

one young, but *Pithecus mandibularis* & *Narsolis larvatus* at this season have young which appear at least a month old. Yesterday evening at sunset a band of *Pithecus mandibularis* were roosting in a tree at the water's edge and out of the lot which consisted of not more than a dozen monkeys, six had young ones clinging to them. Nearly, if not all species of monkeys like to sleep in trees at the banks of rivers or in fact, any body of water, even along the borders of the sea among the nepa palms and mangroves.

During this morning the weather was fine and clear; most of the afternoon rainy; evening clear and moonlight.

May 8, 1914.

Sungai Djambajan & Samarinda.

Before daylight I started down stream in the canoe with Ah Sing and Ibut; four hours' paddling brought us to the native village at the mouth of the river, then we waited about an hour for the steam launch, on its way to Samarinda from Tenggarung. Reach Samarinda about 1:00 P.M.; find my mail at Mr. Gray's office. Talk to Mr. Gray about putting a centre-board in my boat, call at Olmeyer's house and at the Borneo-Sumatra Co's office, return to Kampong Djambajan after dark and sleep in a small Chinese toko.

Forenoon clear, afternoon rainy, evening clear and moonlight.

May 9, 1914.

Sungai Djambajan.

Leave the mouth of the river at daybreak and reach "Lembus" about ten o'clock.

Spend the afternoon hunting, mostly in the swamp and get a bird with the blowpipe, and a fine large pig with the gun.

In the traps, find two rats, entirely spoiled and a *Tupaia* and

a small squirrel in good condition.

There were many small birds at the spring and had my blow-pipe darts been poisoned I should have gotten several, for I hit them; however, the only one I got was one the dart went clean through.

May 10, 1914.

Sungai Djambajan, "Lembus."

Nothing in the traps but a very small kingfisher. Hunt until nearly noon to the west of the river, up stream. From noon until about five P.M. we had rain and some wind but it has not cleared.

There are more mosquitos and sand flies here than most any other place I have visited.

May 11, 1914.

Sungai Djambajan.

This morning at daybreak we began rowing and poling and kept it up until about noon when it seemed impossible to proceed further. Spend the remainder of the day hunting for a place to set traps but everywhere seems to be swampy except one hill and that covered with second growth and matted up with a tangle of rotans in a way that makes it almost impassible.

On the slope of the above mentioned hill I found an old graveyard, possibly twenty or thirty years old, for the iron-wood used to mark them is in a state of decay.

A drizzling rain started about eight o'clock this morning and continued until about sunset.

May 12, 1914.

Sungai Djambajan.

Early this morning I started Ibut and Kayado off to go to the Dyak kampong up stream to get me some opus, poison for blow-pipe darts.

Ah Sing stayed on the prahn drying skins while I hunted through the swamp and on the hill but all I got was one snake about three feet long which I found as I was cutting my way through a swamp.

The two men returned about five o'clock this afternoon and said that further up the stream is impassible on account of fallen trees, so they could not reach the Dyaks.

The weather has been slightly cloudy all day but early this morning there was hard rain; about noon there was some wind.

May 13, 1914.
Sungai Djambajan.

Start down stream with the boat early in the morning, the three men rowing and I steering. It was raining when I awoke at daybreak and continued until about sunset this evening; a most miserable day.

Just at dark I saw some pig-tailed macacus monkeys along the bank of the river and went after them in the small boat. I fired two shots and two monkeys dropped with a loud thud as they struck the earth; however, we could only find one of them; there is a perfect mass of underbrush and perhaps we are lucky to have found even one of them in the dark. This species seems to be general in distribution and by the natives is said to be common nearly everywhere, though I have seen very few of them, less than almost any other species of monkey. It has several native names, such as "Brok", "Bangkoi", "Ulu pundon", "Brok koian".

Spend the night tied up to bushes.

May 14, 1914.

Sungai Djambajan.

This morning I shot two squirrels from the prahn; hunt until noon but see only two small tupaia and an albino Tragulus napu but did not have a chance to shoot it; it appeared all white except its back which looked buffy or yellowish.

About two o'clock this afternoon we again began to row down stream and are now tied up to the bushes about a mile from the river's mouth. On our way down we saw many specimens of long tailed macacus monkeys and Narsalis but no more "Broks."

While hunting this morning I saw claw marks of a bear where it had climbed a tree to get honey. One often sees these however, and also holes clawed into trees by bears in search of the honey of a small species of bee.

May 15, 1914.

Djambajan to Samarinda.

Reach the mouth of the Djambajan about 8:00 A.M. and tie up to a landing until nearly noon. I came to Samarinda on the launch from Tenggaraung and Kayado, Ah Sing and Ibut brought the prahn down arriving here at dusk. I reached here about 2:00 P.M. and went to the post office and to Mr. Gray's office where I found my mail and from the Harbor Master received the charts I ordered, of Celebes.

Tie up my prahn to Mr. Olmeyer's landing in Karang Mumus, about a hundred yards or so from its mouth.

Dine and spend the evening at Mr. Gray's.

The weather has been fine and clear and hot all day.

May 16, 1914.
Samarinda.

Do some errands, some writing, and pack my alcoholics into a big iron can. Showers during the afternoon.

May 17, 1914.
Samarinda.

Dry specimens between showers and do some writing.

By the steamer which arrived this morning, receive a topographical chart of Celebes from Batavia.

Late in the afternoon show Mr. Gray some of my specimens and spend the evening with him.

May 18, 1914.
Samarinda.

Spend the whole day in the boat wrapping and packing specimens. It seems impossible to get many paste-board boxes and without them packing is made very troublesome.

During the early evening, go to Mr. Blakeman's and watch some Malay boys wrestle.

Most all day has been hot though we did have a couple of light showers this afternoon.

May 19, 1914.
Samarinda.

Solder some cans and air and dry specimens and hunt up some packing materials.

Get my cartridges from the customs house which were shipped me last September from the Smithsonian; they have been laying here for six months and both times before when I asked the shipping agent and the customs officer, they said they knew nothing of them. This time there was a new agent who had ambition enough to hunt

through his books and found that the box had been here a long time. They claimed the address to be illegible.

May 20 to July 5, 1914.
Samarinda.

After having shipped my specimens I had the "Bintang Kumala" pulled out on Gray's slip and dried her out for about ten days and then began to repair her. On account of having been so long in the water, worms had gotten into her bottom and to destroy them it was necessary to keep a smouldering fire under her for two days.

Pack all my outfit into boxes and put the entire under Olmeyer's house in which I am staying.

After being unable to get a crew of Soloks or Bajans from Berace I hunted about here and finally found a Buggis who claimed he had long been captain of a schooner and could sail the Buntang Kumala to Donggala so I arranged with him to get two men to rig the prahn and sail her to Donggala. There was no way to find out for sure that these three men were sailors except to judge so because they knew how to rig the boat so I was somewhat disappointed when on July 25th, I tried out the boat in the river and had much trouble; however, the following day we made a start. There was a good breeze on the river and before we had gotten two miles down the river it was clear to see that I had no sailors; they finally ran the boat ashore. I returned to Samarinda, could get no natives who could sail so finally traded in the "Bintang Kumala" and took over the schooner "Alnoer" from a Bugis and will go with him to Donggala and there hunt for a crew to sail the "Alnoer."

July 5, 1914.

Samarinda to Sungai Meriam.

To-day is the beginning of my trip from Borneo to Celebes, with five Buginese and an old Chinaman whom I am taking along as a cook, in the two masted schooner named "Alnoer" of which I am skipper.

The Buggis promised to be ready to sail at eight o'clock this A.M. but turned up about noon, so when we had gotten my things aboard I went and said good-bye to my friends, Mr. Gray and his family, Mr. Bleykonans and finally to Mr. Olmeyer and his family; I could see them waving to me until we were more than a mile down the river.

Stop at the customs inspector's and then drift and sail slowly on down the river, finally anchoring about midnight just off Sungai Meriam.

July 6, 1914.

Sungai Meriam to Muara Bekapai, Tg. Kee.

It was just getting daylight when I awoke this morning and all way calm and clear; I sent Hadji Mohamat Arsat ashore to the customs Inspector and when he returned we got up sail and slowly sailed down the river, tacking backwards and forwards, and twice running aground on mud banks but getting off without much trouble in each case.

The tide began to run flood about four o'clock in the afternoon so we anchored and waited until about eight o'clock in the evening when we began rowing and drifting down stream, finally anchoring in Muara Bekapai off Tandjong Kee about two o'clock in the morning when the tide again began to flood.

July 7, 1914.

Muara Bekapai and Makassar Strait.

At daybreak the tide was still flooding but by six-thirty the anchor was up and we had begun to slowly work our way down through the broad nepa bordered inlet. After an hour the wind increased but as it was almost dead ahead we had to tack back and forth until we finally reached the open sea; at eleven o'clock we were clear of land and an hour later passed the outer buoy.

There was a good strong breeze from the south and we headed E., N.E. by E. about straight for Donggala.

About nine or ten o'clock in the evening we passed a steamer which is probably bound for Samarinda.

July 8, 1914.

Makassar Strait and Donggala.

Several times during the night I was up on deck; there was a fine steady breeze and bright moonlight, so sailing was fine. After about two A.M. the wind became very light and later in the morning was almost a calm. Shortly after noon the wind increased and became almost southwest.

About four o'clock this afternoon we sighted land and a short time afterwards could see Tandjong Karang at the mouth of Palos Bay and for this we headed. As we neared the coast the wind and sea increased. We finally entered Palos Bay about eight P.M. and sailed in beyond Donggala and anchored near the shore in deep water.

July 9 to 14, 1914.

Donggala.

At a few minutes before eight o'clock we came to anchor near the customs house and I immediately went ashore to the Customs

House and later called on the Assistant Resident and the Controleur and went to the Post Office but was disappointed to find no mail.

The Controleur will help me to get men though they are not as plentiful as I was led to believe by H. Mohamat Arsat and Olmeyer.

Donggala is a fine kampong and more spread about than the villages in Borneo which are as a rule along the edge of the water. The streets are well made with a rock foundation and ditches on either side, also made of stones and cement.

When one first comes ashore, the thing most impressive is difference in the features, etc. of the natives. These Buginese are much darker than the Bornean natives and more sinewy, more like Bajans but with sharper features. The "sarong" is much more used here than in Borneo and although the men for the most part wear short trousers they also wear a sarong hung obliquely over the shoulder to the hip.

The houses of the natives are large spacious ones set up on high posts with some fancy carved ornament, as a rule, at the end of either gable. Nipa leaves are used for thatching the roofs and in many cases for the sides but some of the houses have the sides made of bamboos split and woven and there are also a few houses made of corrugated galvanized iron. The shops of the Chinese and Arabs are mostly of boards. There are many Arabs here.

There is no fresh water near the shore and I had to send more than half a mile for water.

July 14, 1914.

Donggala to Sirendja.

The custom officer, acting Harbor Master, delayed me so that I was unable to start until nearly two o'clock this afternoon.

When we left Donggala there was a strong southwest breeze and we were soon out of the bay but later the wind died somewhat and we hardly more than drifted along. About dusk we were becalmed but after dark came a light breeze from the mountains. I slept intermittantly until we reached Sirendja about three o'clock in the morning and anchored about three hundred yards off shore.

July 15, 1914.
Sirendja.

Sirendja is a small kampong twenty nine miles north of Donggala. There has recently been constructed a road so that at the present time it is possible to go by horse from Donggala to Sirendja and I am told, even farther north (possibly to Dampelas). The road with few exceptions is made close along the shore. The building of the roads throughout all the parts of Borneo and Celebes which I have visited is done by the natives, forced by the government. Each able bodied native man is required to work on the roads from four to ten days a month; the time being lessened when roads are completed, only sufficient being demanded to keep the roads in repair.

Near the shore at Sirendja the land is low, a mixture of said and black detritus. There is some small jungle which appears to be all second growth. Some swamps, in which grow many sago-palms, and slightly inland from the swamps are fields of dry paddy and large fields of "Lalang" or long coarse grass. I was told by the natives that deer were plentiful so at night I hunted inland through the fields of rice and grass until nearly three o'clock in the morning but did not get a shot at a deer. Pigs are evidently plentiful for I saw many tracks and wounded one small black one which left a trail of blood but had strength enough to go some distance. I followed until it went into a mass of rattans which was

all mud, tracked up in all directions.

The mountains in the background are about three thousand feet in height and apparently covered with dense forest which looks rather low compared with the forests of Borneo.

Many of the native here are making small coconut plantations. Wherever it is fit to plant coconuts near the shore, these palms may be seen in numbers; possibly there are too many of them for the natives have a tendency to plant the trees too close to each other for by so doing they have less ground to clear and fence and never consider that by so doing, the trees will bear poorly or not at all.

All of the paddy fields I came across have been fenced with either bamboo or wood. Fences made of bamboo are the most simple and probably quicker to construct, as bamboo is usually plentiful, being much more common than where I have been in Borneo.

In Borneo I had never seen a fence constructed by the natives that would keep out the pigs but here where the pigs are so much smaller the bamboo and wooden fences, if well constructed, serve well for a few months or until the rattan with which it is tied together becomes rotted or weak.

For rice fields they do very well as they last at least long enough to protect the crop from the time it is planted until it is reaped.

I came upon several places where the natives had been making "sago" which to many of them takes the place of rice.

Though the government does not allow the natives to keep fire arms, they nevertheless have many, some of which are most peculiar

and nearly all look decidedly unsafe to handle as they are old, mostly muzzle loaders and very loose. I came upon a party of them hunting in a field. One of their number carried a small reflector lamp and behind him came seven or eight, each carrying a gun, and one or two, in addition to their guns, and parangs carried spears. They told me when they met a deer, they all fired to be sure of getting it. So I can imagine in this locality deer are not as common as they, of the shore, at first led me to believe.

When I returned to the shore after hunting for several hours I discovered that our sampan had not been securely made fast and had drifted away, so finally after much hunting about in the darkness, we found a tiny sampan with outriggers and carried it down to the water's edge, and waiting our opportunity, safely launched it and paddled off to the larger boat, using coconut leaves for paddles.

July 16, 1914.

Sirendja to Dampelas.

We got up anchor about nine o'clock this morning but there was only a very light breeze which hardly more than moved us along. Later the wind came from the south or a little west of south and we made good time and rounded Tandjong Manimbaja and then headed for Tandjong Dampelas, fifteen miles further on, then the wind died out and the boat rocked and rolled until finally after an hour or so came a stiff wind from the land and we were just able to lay a course and reached Tandjong Dampelas about dusk, but under the lee of the point which is high and comes down steep right to the shore, there was nothing but little gusts of wind, so we kept a little farther from the shore and sailed on into the cove. The water is very deep and a school of porpoises played about the boat and

looked wonderfully wierd as they swam with great speed leaving a glowing phosforescent trail and then raise above the surface of the water, making a splash and a strong blowing noise.

Later, about ten o'clock came a light wind from the mountains and as the water was far too deep to anchor in, we had to beat back and forth until about two in the morning, then hurriedly furling the sails, all hands turned in to sleep.

July 17, 1914.
Dampelas.

At Dampelas the kampong has lately been reconstructed by orders of the government and the houses built along the road, though just here the road does not amount to much more than a cleared strip of land which, as the ^{soil} is composed mostly of sand, is during this dry season very soft and extremely hot and actually painful to my feet as my skin is not as callous as that of my companions.

On account of no natives having come along the coast for some time, the natives here came aboard early this morning, wanting to buy tobacco and sugar.

The natives here make their own salt by boiling the sea water mixed with wood ashes in a large iron caldron and the resulting salt is very fine and nearly white, though tinged with grey. It does not seem to me to be quite as strong as the ordinary American table salt.

November 1, 1914.

Starting for Toli Toli.

Kwandang to S.W. corner of Pulo Otangala.

Early this morning I went to call on the Controleur and returned to the boat about 9:00 o'clock and at ten set sail. At first there was a good N. N.W. breeze and we were not long beating our way out of the harbor and then started westward. At one o'clock it began to look squally and there was less wind but a big sea. At about 3:30 we were struck by a squall which lasted about an hour; it blew a terrific gale and rained very hard. Finally we had to come in behind Otangala for the night as the wind has shifted to southwest.

November 2, 1914.

From S.W. corner of Pulo Otangala to Soemalata in a heavy sea with a light wind.

Anchor to the southwest of Dojanoema Island in eighteen fathoms of water. Wind and rain squalls during the night.